SURFCAM®

CAD/CAM Software

What's New

6

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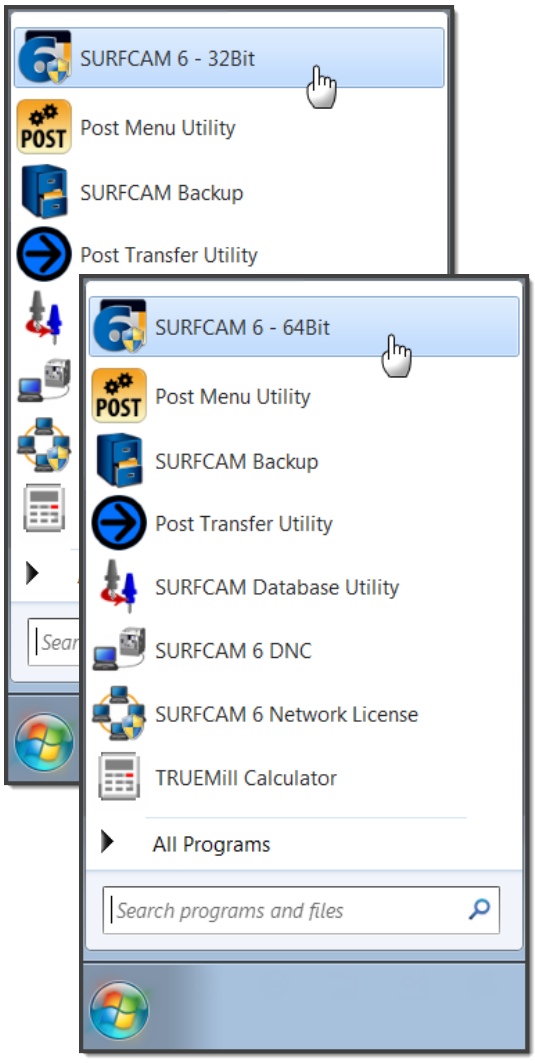
General/System

New 64 Bit Version >>

- Separate install for 32 Bit and 64 Bit Versions
- Separate 64 Bit & 32 Bit executables
- 64 Bit Version supported on both Windows 7 and Windows XP
- Files saved in 32 Bit or 64 Bit can be used in either operating system
- 2 separate DVD media will be shipped - 32 Bit & 64 Bit
- 64 Bit Version provides overall improved memory & performance



Windows xp

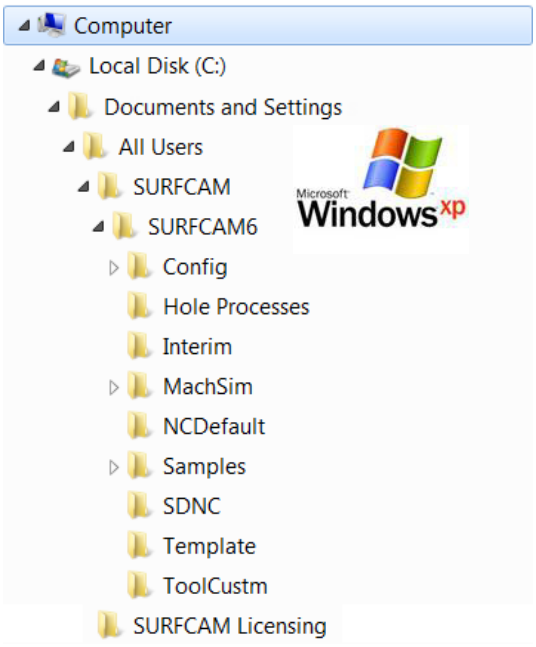
Windows 7

General/System

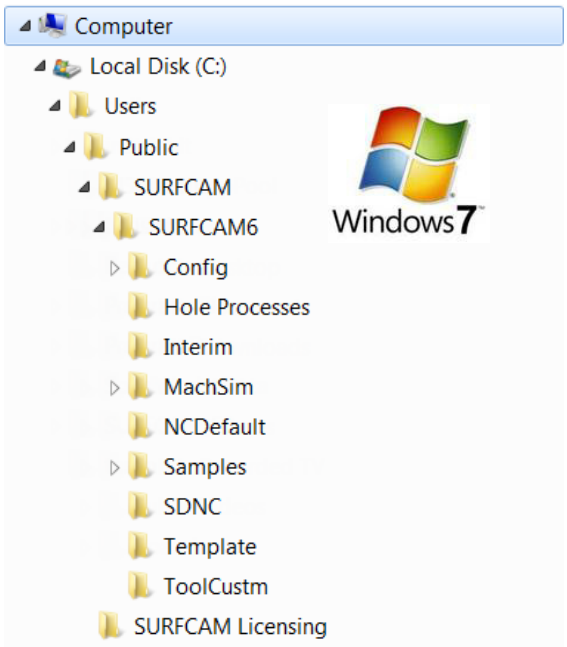
Microsoft Compliant Structure >>

- Microsoft Windows 7 compliant data structure
- Non-customizable files are installed in the "Program Files" folder in both Windows 7 and Windows XP
- User-customizable files are installed in the "Users/Public" folder in Windows 7 and the "Documents and Settings/All Users" folder in Windows XP
- Special UAC settings or permissions not required
- Refer to the "Quick Start Guide" for new SURFCAM 6 data structure
- Provided default directories are recommended to accept during installation
- See the HELP System for more information

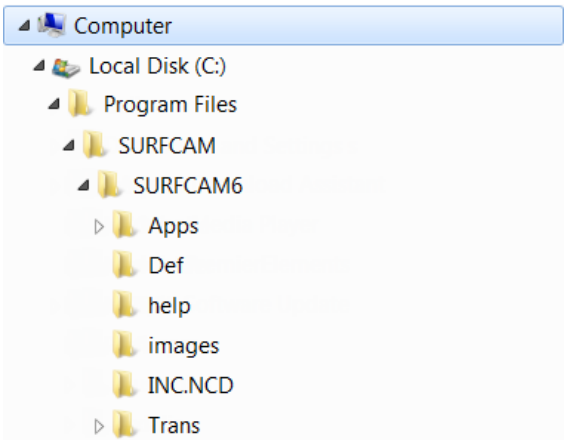
Windows XP User Customizable Files



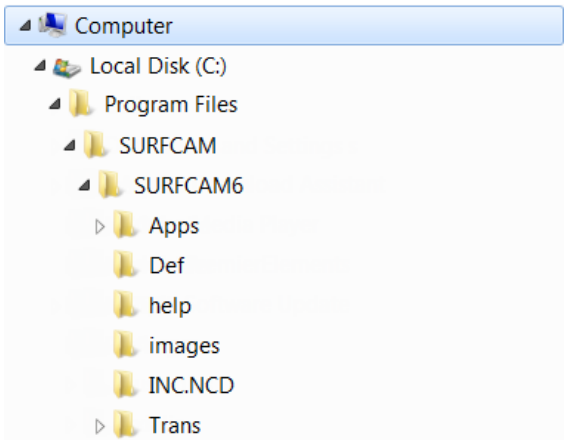
Windows 7 User Customizable Files



Windows XP Non-Customizable Files



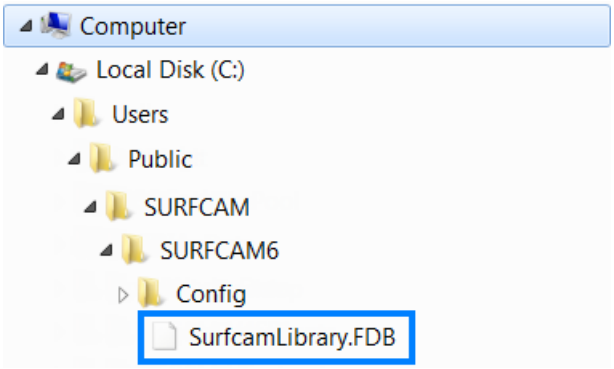
Windows 7 Non-Customizable Files

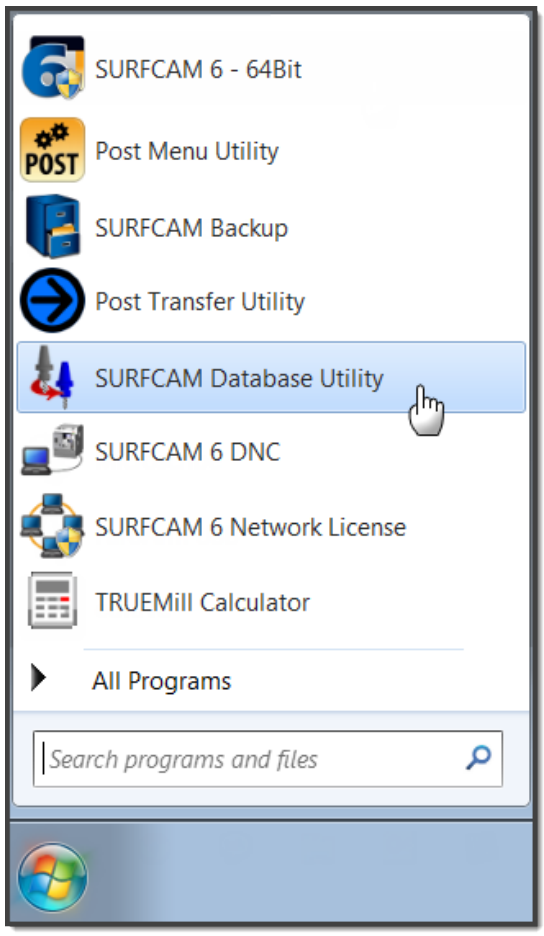


General/System

New Tools, Materials & Masks Database >>

- New Tools, Materials & Masks Database in SURFCAM 6 (SurfcamLibrary.FDB)
- ANSI SQL based relational structured database developed with Firebird
- Tools & Materials library still accessible from SURFCAM tools dialog
- .FDB files can also be edited with FlameRobin. A Freeware Download Only: http://www.flamerobin.org/
- All .MDB files will need to be converted to .FDB files
- Database Utility tool provided to convert .MDB files to .FDB files
- Tools & Materials supported on both 32 Bit and 64 Bit
- See the Help System for more information

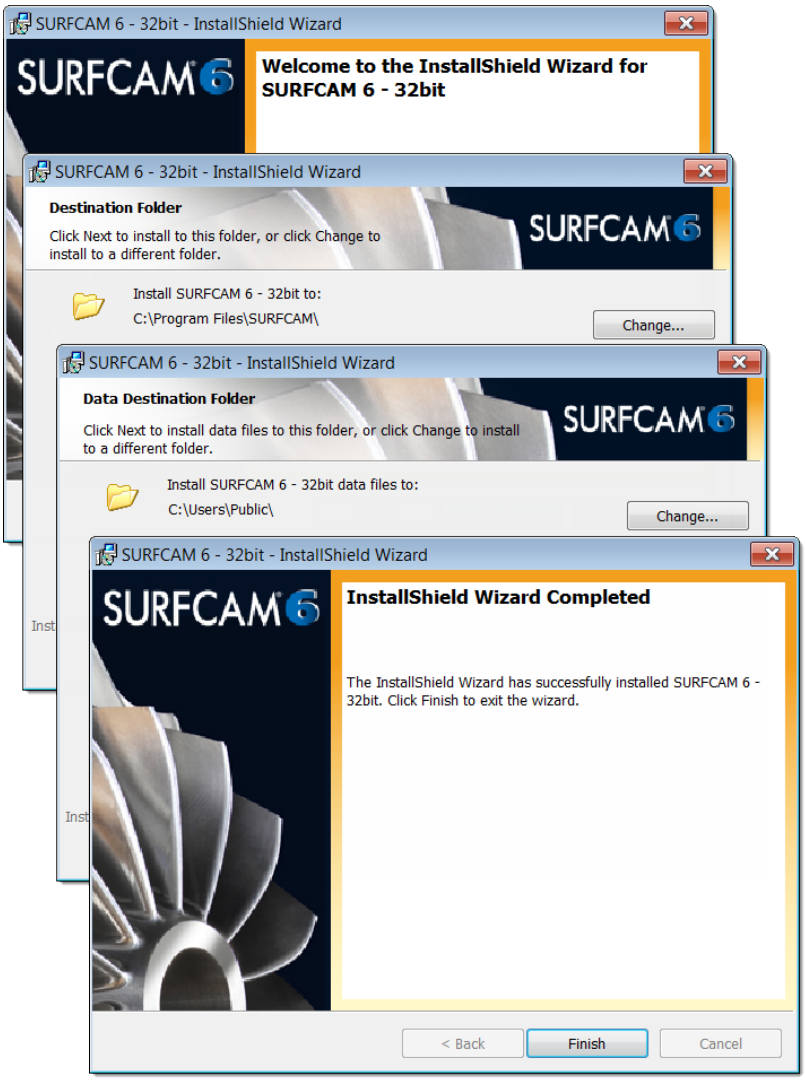




General/System

New InstallShield Wizard >>

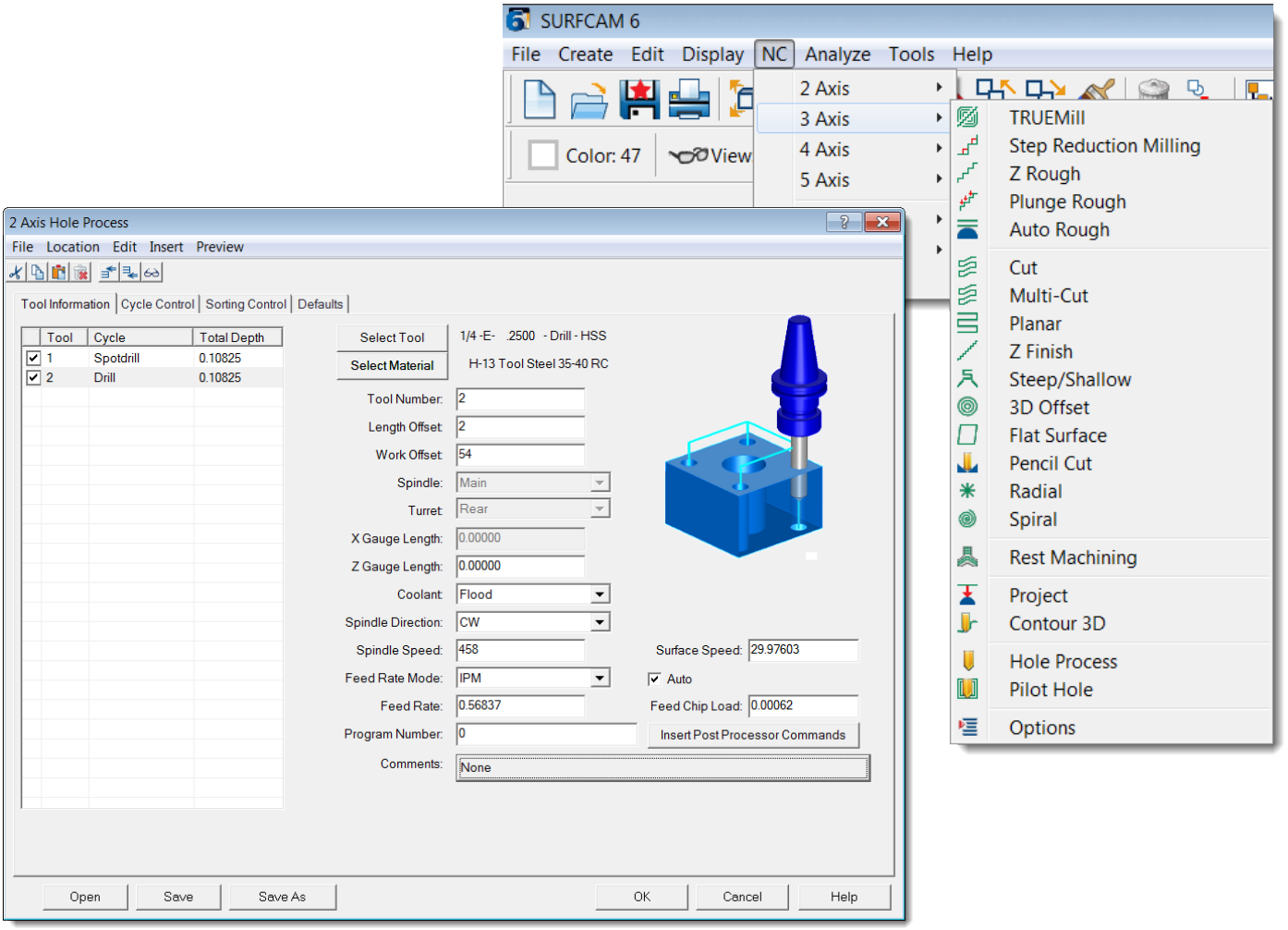
- SURFCAM 6 will install as a new install only in both 32 Bit and 64 Bit
- No upgrade option is available from SURFCAM V5.2 or previous versions
- SURFCAM 6 Includes a silent installation as well. No input required by user
- SURFCAM 6 application prerequisites automatically install if required to do so
- Provided default directories are recommended to accept during installation
- See the Help System for more information


SURFCAM 6 - 32bit - InstallShield Wizard
SURFCAM6
Welcome to the InstallShield Wizard for SURFCAM 6 - 32bit
SURFCAM 6 - 32bit - InstallShield Wizard
Destination Folder
Click Next to install to this folder, or click Change to install to a different folder.
Install SURFCAM 6 - 32bit to:
C:\Program Files\SURFCAM\
Change...
SURFCAM 6 - 32bit - InstallShield Wizard
Data Destination Folder
Click Next to install data files to this folder, or click Change to install to a different folder.
Install SURFCAM 6 - 32bit data files to:
C:\Users\Public\
Change...
SURFCAM 6 - 32bit - InstallShield Wizard
InstallShield Wizard Completed
The InstallShield Wizard has successfully installed SURFCAM 6 - 32bit. Click Finish to exit the wizard.
< Back
Finish
Cancel

Interface

Updated Interface >>

- All new icons designed with a consistent theme and methodology
- New .exe and SURFCAM file association icons in SURFCAM 6
- More descriptive graphics incorporated into dialogs
- See the HELP system for more information



SURFCAM 6 File Association Types

*.SCPRT *.SCEDU *.SCCTL *.SCHPT *.SCMOD *.SCTPL

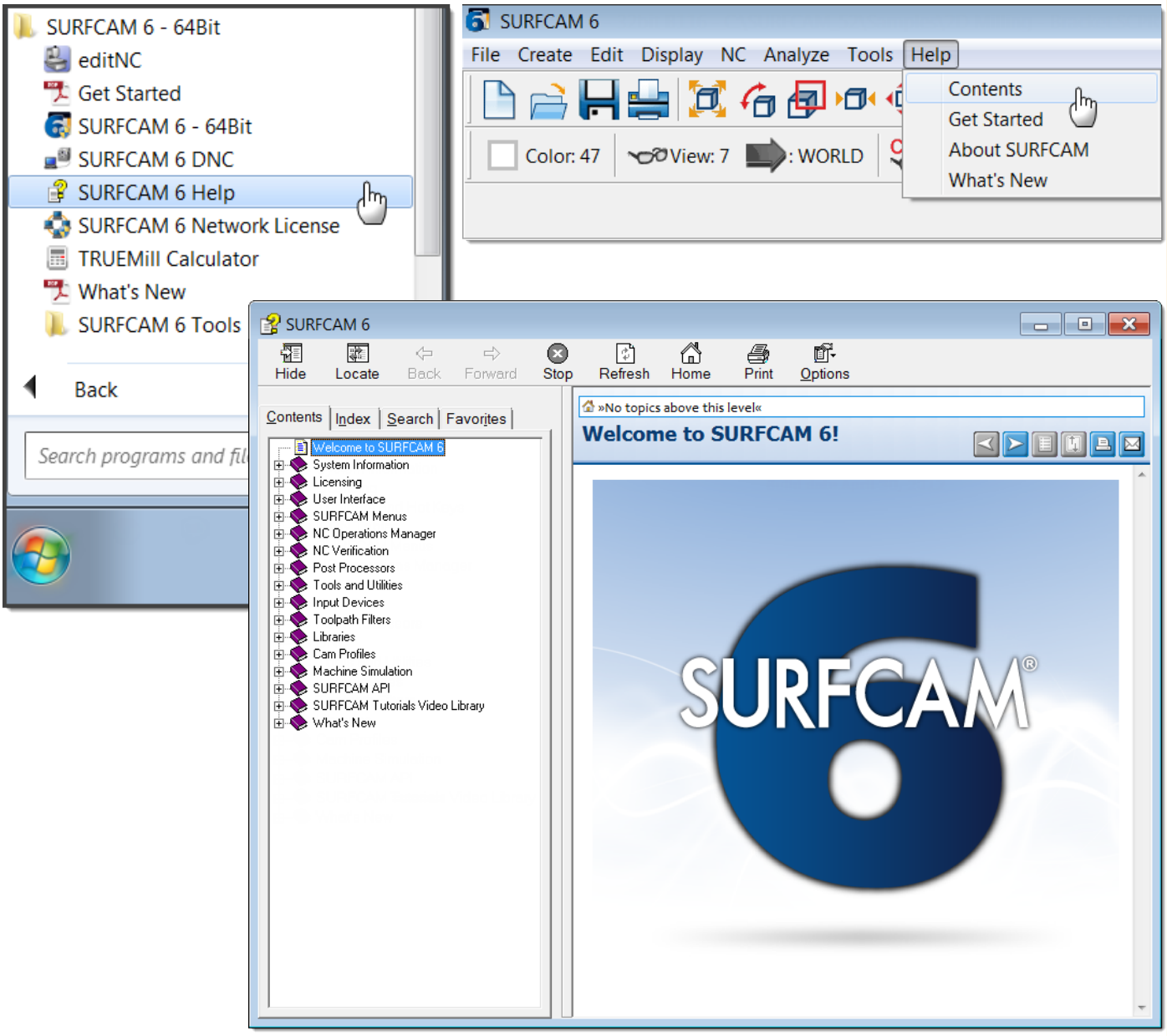
SURFCAM 6 Executables

SURFCAM 6 – 64 bit.exe SURFCAM 6 – 32 bit.exe

Help System

New Help System >>

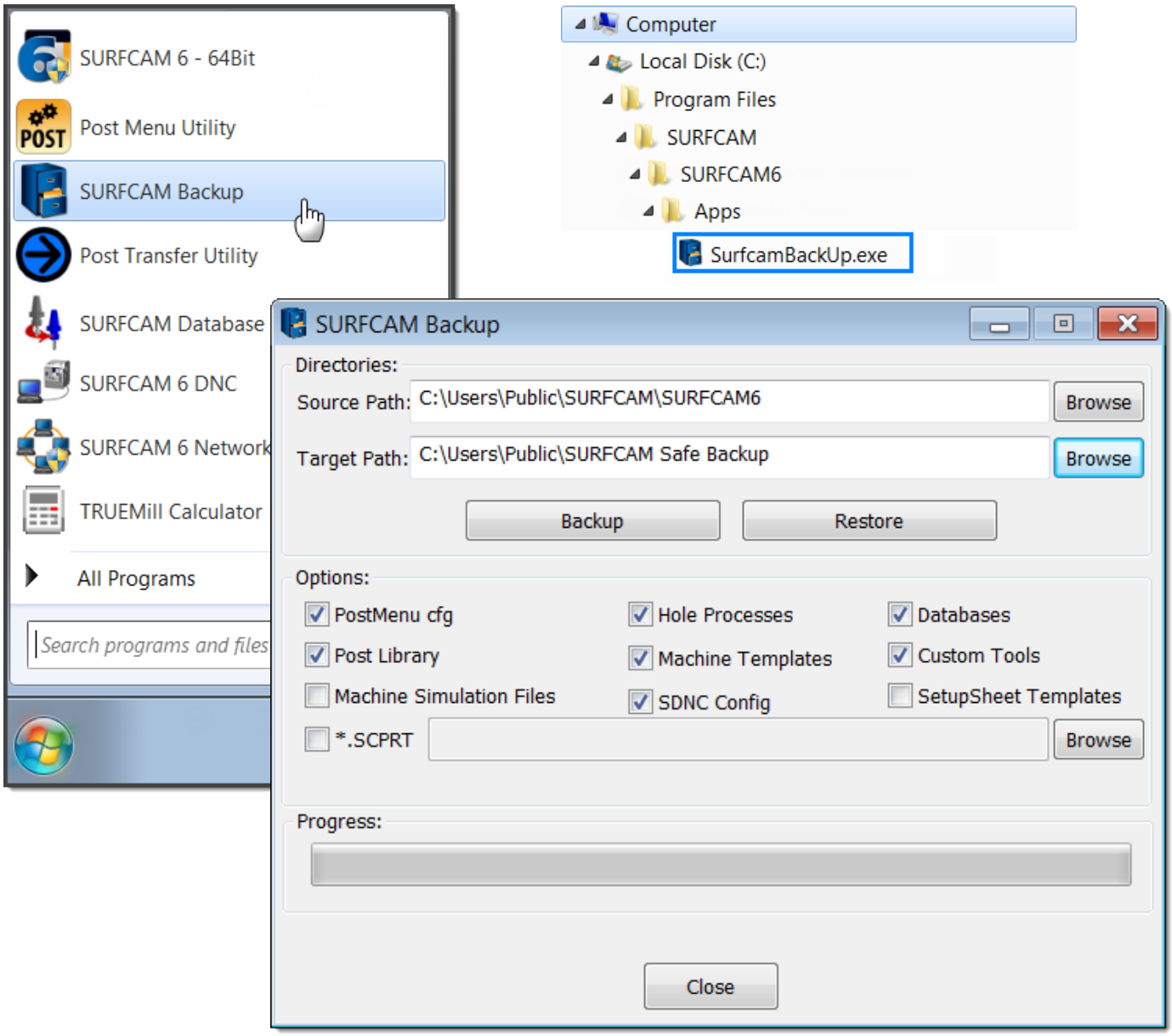
- Redesigned HELP System for SURFCAM 6
- Now with more Help Topics & Documentation
- Easy to search and find Help in SURFCAM with F1 function
- Includes Web and iPad2 viewable versions of the help system at: http://www.surfcam.com/help/ipad/index.html



Utilities

Updated Backup Utility >>

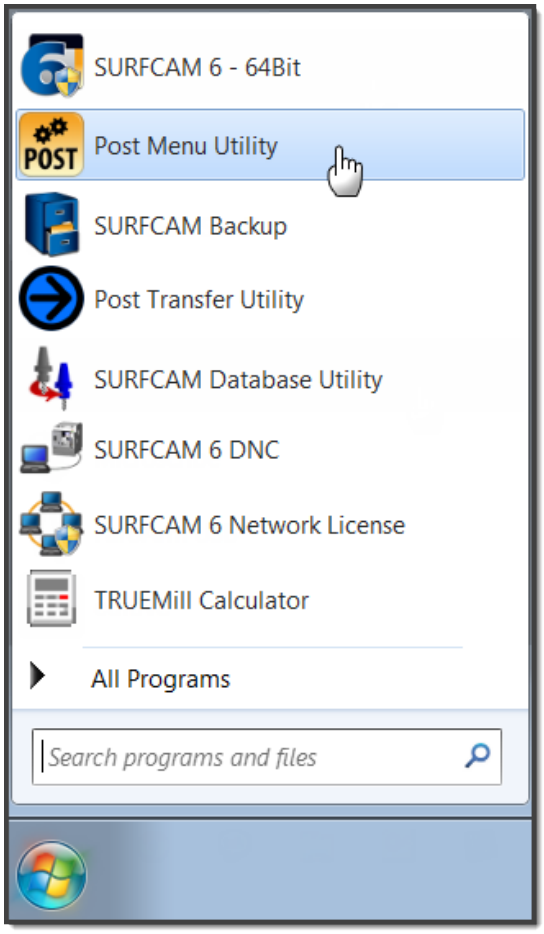
- Now includes Set-up Sheets & Machine Simulation Backup
- This version of SURFCAM Backup is specific to SURFCAM 6 only and is intended to backup important information to a safe "backup" location
- See the Help System for more information
- Watch the video here

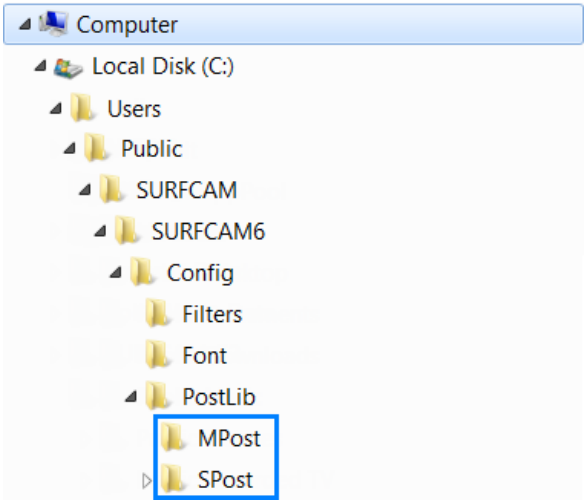


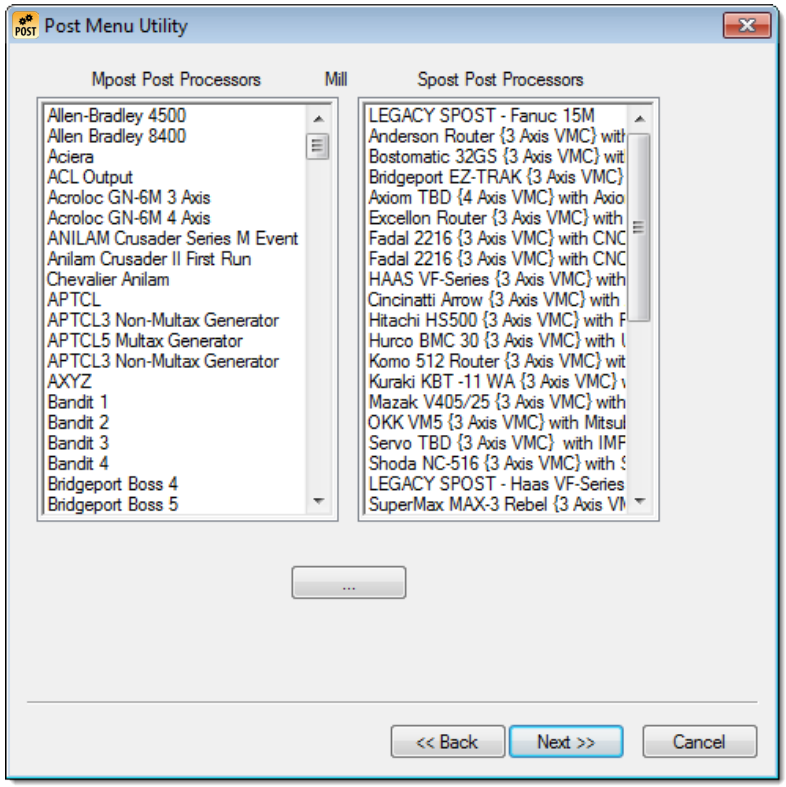
Utilities

Updated Post Menu Utility >>

- Updated Post Menu Utility
- See the Help System for more information
- Watch the video here



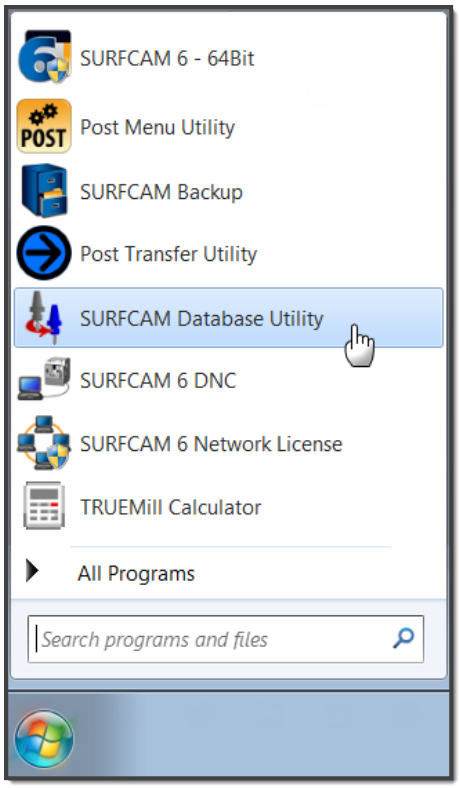


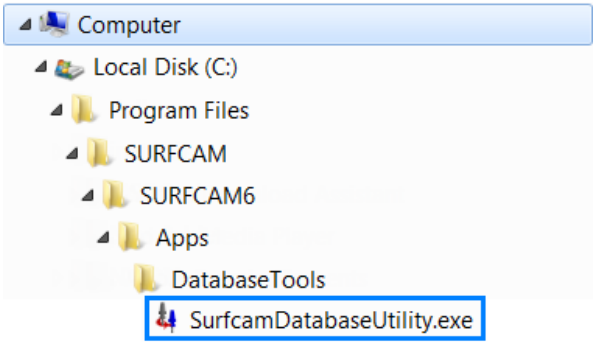

Post Menu Utility
Mpost Post Processors
Mill
Spost Post Processors
Allen-Bradley 4500
Allen Bradley 8400
Aciera
ACL Output
Acroloc GN-6M 3 Axis
Acroloc GN-6M 4 Axis
ANILAM Crusader Series M Event
Anilam Crusader II First Run
Chevalier Anilam
APTCL
APTCL3 Non-Multax Generator
APTCL5 Multax Generator
APTCL3 Non-Multax Generator
AXYZ
Bandit 1
Bandit 2
Bandit 3
Bandit 4
Bridgeport Boss 4
Bridgeport Boss 5
LEGACY SPOST - Fanuc 15M
Anderson Router {3 Axis VMC} with
Bostomatic 32GS {3 Axis VMC} wit
Bridgeport EZ-TRAK {3 Axis VMC}
Axiom TBD {4 Axis VMC} with Axio
Excellon Router {3 Axis VMC} with
Fadal 2216 {3 Axis VMC} with CNC
Fadal 2216 {3 Axis VMC} with CNC
HAAS VF-Series {3 Axis VMC} with
Cincinatti Arrow {3 Axis VMC} with
Hitachi HS500 {3 Axis VMC} with F
Hurco BMC 30 {3 Axis VMC} with
Komo 512 Router {3 Axis VMC} wit
Kuraki KBT -11 WA {3 Axis VMC}
Mazak V405/25 {3 Axis VMC} with
OKK VM5 {3 Axis VMC} with Mitsul
Servo TBD {3 Axis VMC} with IMF
Shoda NC-516 {3 Axis VMC} with
LEGACY SPOST - Haas VF-Series
SuperMax MAX-3 Rebel {3 Axis VM
...
<< Back
Next >>
Cancel

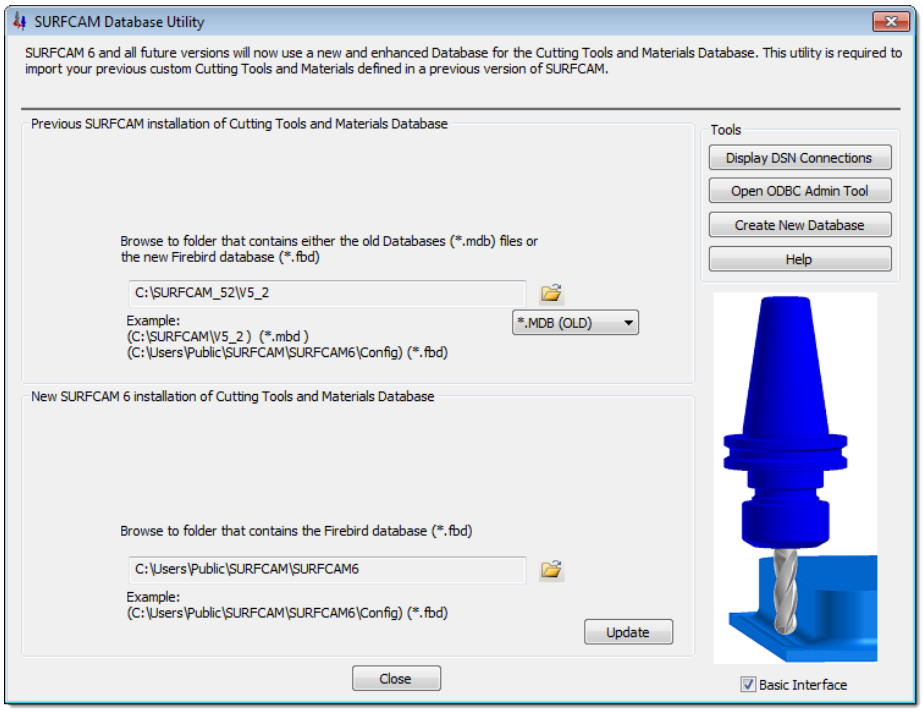
Utilities

New SURFCAM Database Utility >>

- New Tools, Materials & Masks Database in SURFCAM 6 (SurfcamLibrary.FDB)
- All .MDB files will need to be converted to .FDB files
- Database Utility tool provided to convert .MDB files to .FDB files
- See the Help System for more information
- Watch the Video here





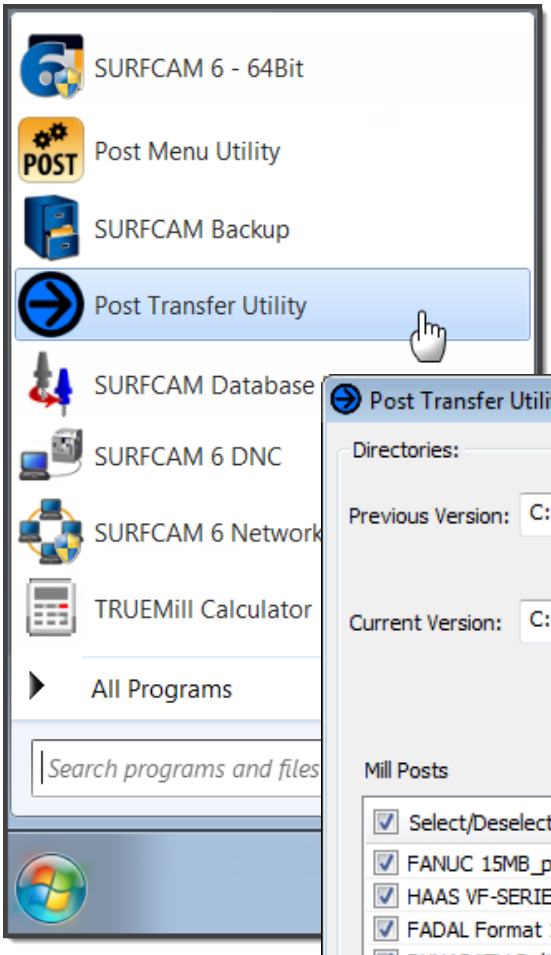

SURFCAM Database Utility
SURFCAM 6 and all future versions will now use a new and enhanced Database for the Cutting Tools and Materials Database. This utility is required to import your previous custom Cutting Tools and Materials defined in a previous version of SURFCAM.
Previous SURFCAM installation of Cutting Tools and Materials Database
Browse to folder that contains either the old Databases (*.mdb) files or the new Firebird database (*.fbd)
C:\SURFCAM_52\V5_2
Example:
(C:\SURFCAM\V5_2) (*.mbd)
(C:\Users\Public\SURFCAM\SURFCAM6\Config) (*.fbd)
*.MDB (OLD)
New SURFCAM 6 installation of Cutting Tools and Materials Database
Browse to folder that contains the Firebird database (*.fbd)
C:\Users\Public\SURFCAM\SURFCAM6
Example:
(C:\Users\Public\SURFCAM\SURFCAM6\Config) (*.fbd)
Update
Close
Tools
Display DSN Connections
Open ODBC Admin Tool
Create New Database
Help
Basic Interface

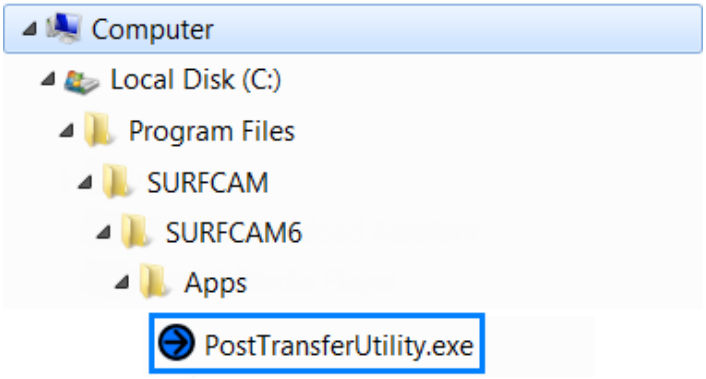
Note:
The New SURFCAM Database Utility is provided for SURFCAM users with custom developed Tools & Materials from a previous version of SURFCAM using Microsoft Access Database files. (*.MDB). The Database Utility is not required to run if no custom Tools or Materials have been developed from a previous version of SURFCAM.

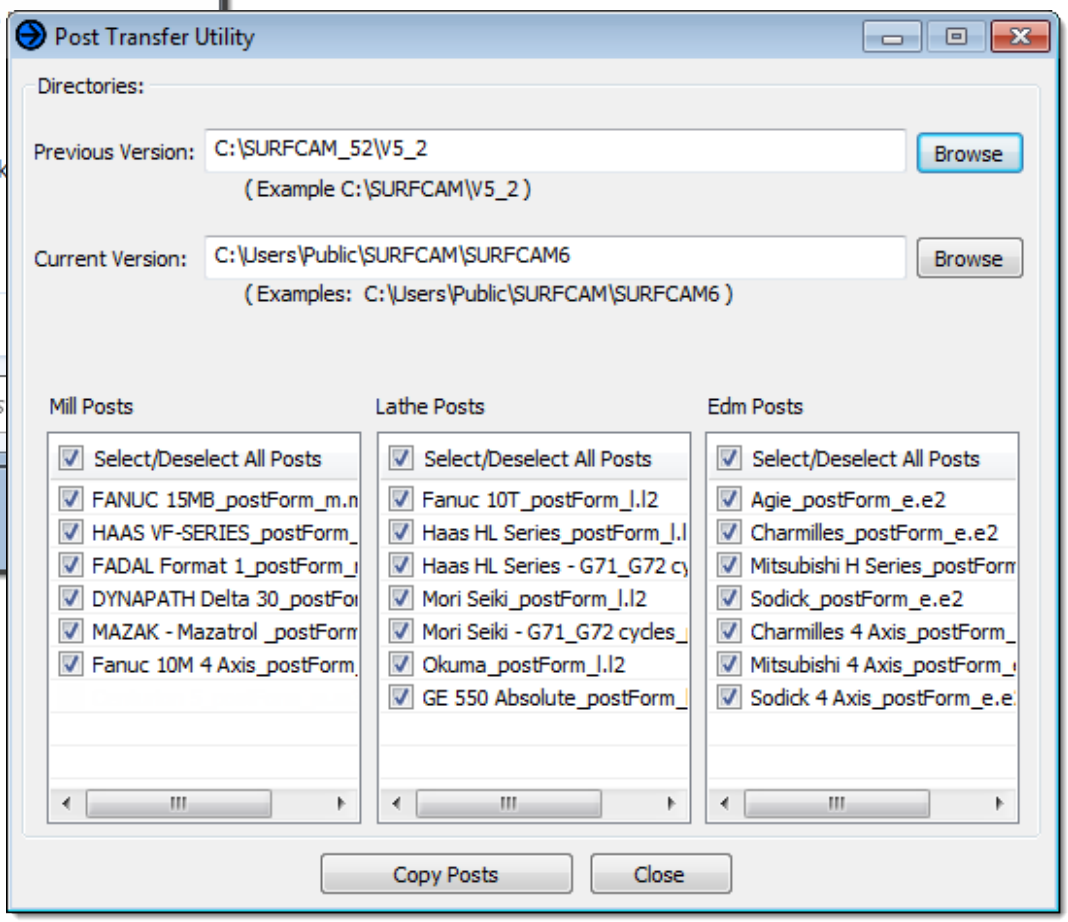
Utilities

Post Transfer Utility >>

- Seamlessly transfer posts from previous versions of SURFCAM into SURFCAM 6
- See the Help System for more information
- Watch the Video here



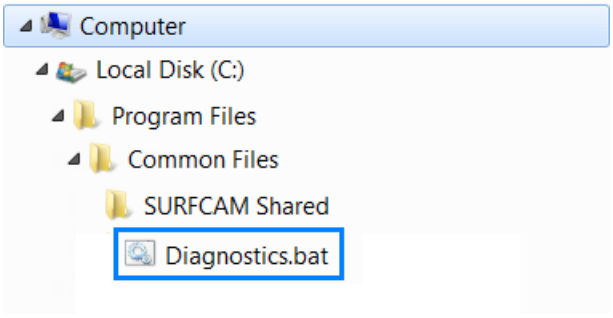


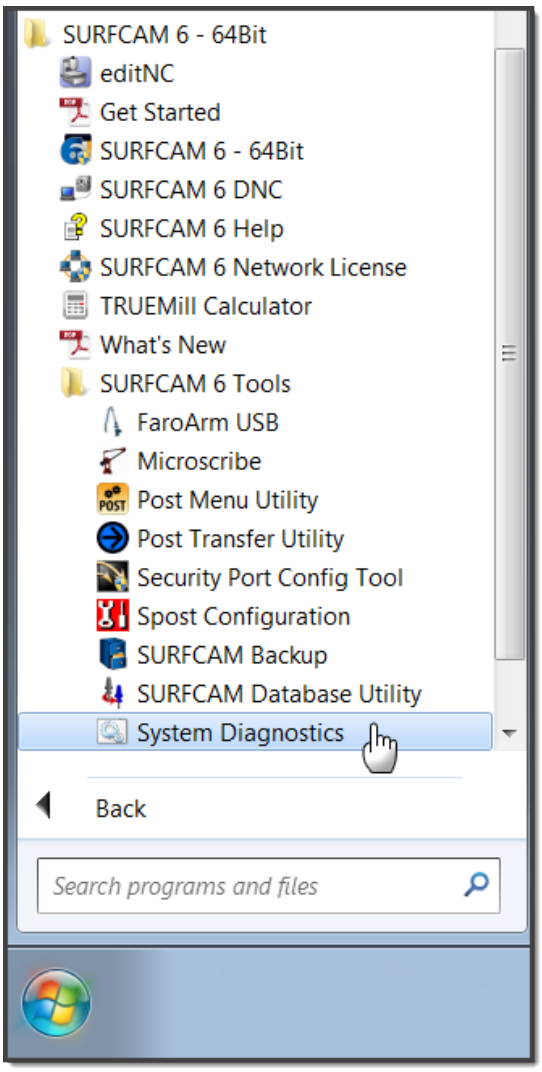


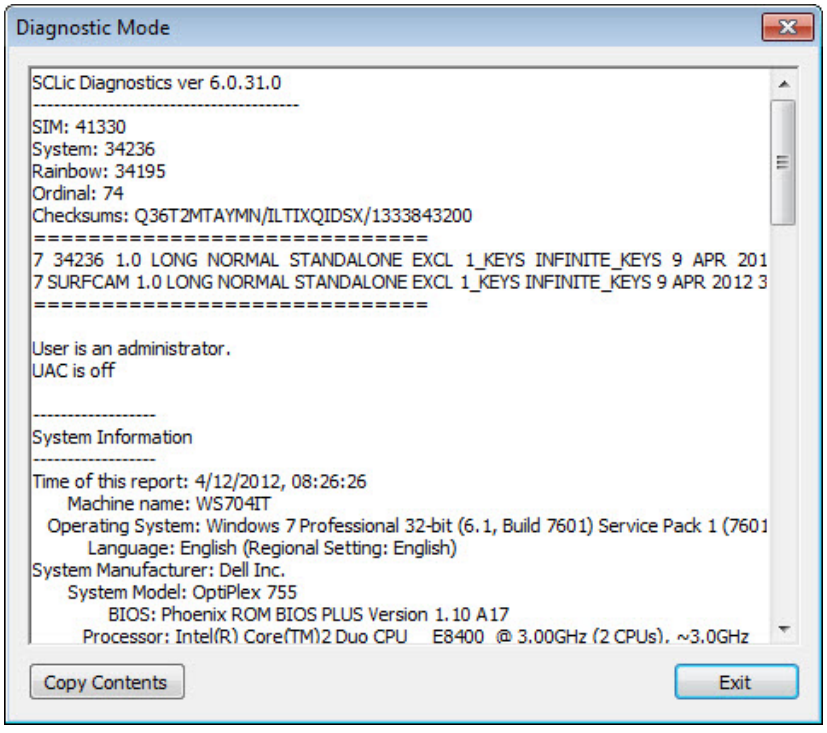
Utilities

SURFCAM System Diagnostics >>

- Utilizes the new License File Installer
- Queries the SIM to check SIM health and license installed
- Compiles system summary (DxDiag) useful for support representatives
- See the Help System for more information
- Watch the video here



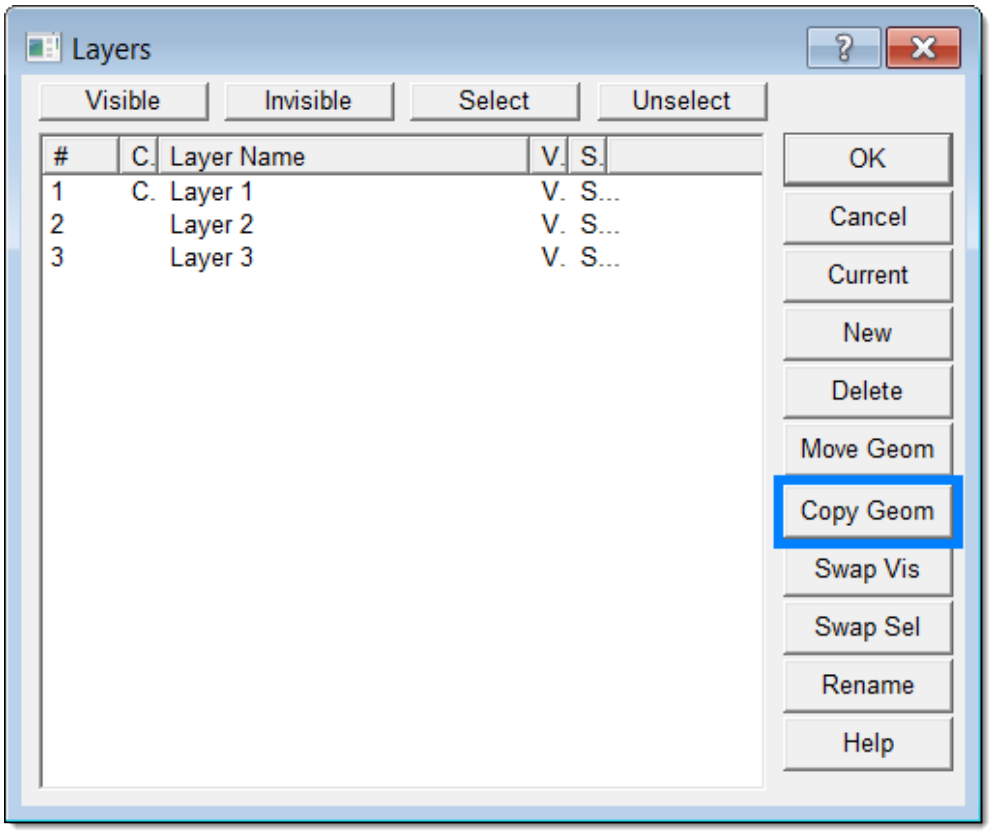



Diagnostic Mode
SCLic Diagnostics ver 6.0.31.0
SIM: 41330
System: 34236
Rainbow: 34195
Ordinal: 74
Checksums: Q36T2MTAYMN/ILTIXQIDSX/1333843200
7 34236 1.0 LONG NORMAL STANDALONE EXCL 1_KEYS INFINITE_KEYS 9 APR 201
7 SURFCAM 1.0 LONG NORMAL STANDALONE EXCL 1_KEYS INFINITE_KEYS 9 APR 2012 3
User is an administrator.
UAC is off
System Information
Time of this report: 4/12/2012, 08:26:26
Machine name: WS704IT
Operating System: Windows 7 Professional 32-bit (6.1, Build 7601) Service Pack 1 (7601
Language: English (Regional Setting: English)
System Manufacturer: Dell Inc.
System Model: OptiPlex 755
BIOS: Phoenix ROM BIOS PLUS Version 1.10 A17
Processor: Intel(R) Core(TM)2 Duo CPU E8400 @ 3.00GHz (2 CPUs), ~3.0GHz
Copy Contents
Exit

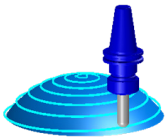
Layers

New "Copy Geometry" in Layers >>

- Similar functionality to the "Move Geometry" command
- The user can now copy geometry from one layer to another from within the layers list by simply selecting the layer to copy the geometry to and hitting the "Copy Geometry" button. The geometry is then selected to be copied as it is with any "Transform" function

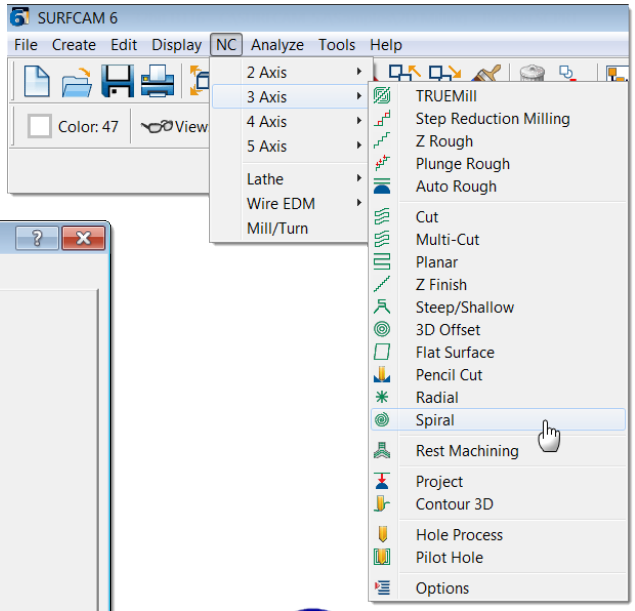


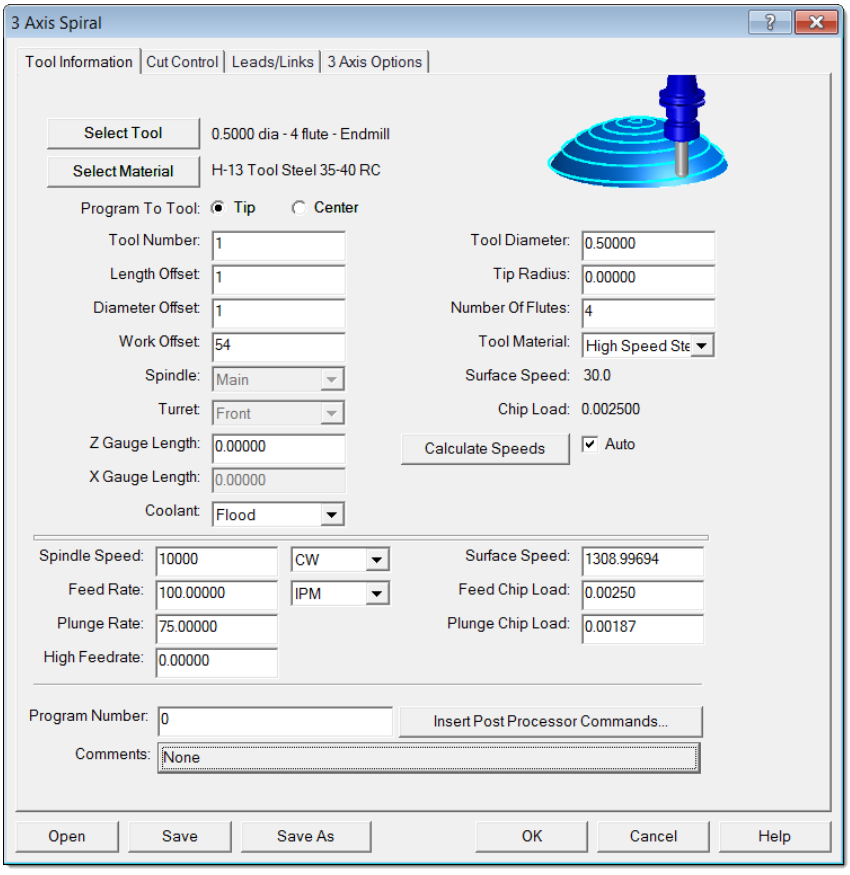
Toolpath Generation

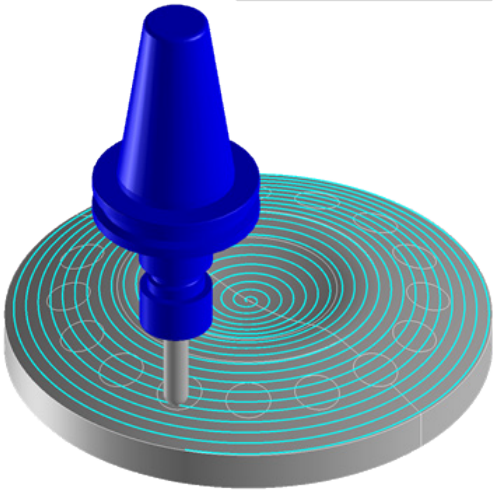


New "Spiral" >>

- The New Spiral Toolpath is a single, projected spiral path that radiates outward from a center point, while the tool motion can move from either outside-in or inside-out
- This machining strategy is most effective on areas that include shallow curved surfaces and circular areas as the passes are spaced along the XY-plane (step-over), and not the Z-plane (step-down)
- Included in the "3-Axis Advanced Edition" System Level
- Sample programmed part provided in Sample files (3DMilling - Spiral Disc.SCPRT)
- See the Help System for more information
- Watch the video here

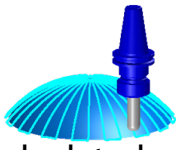




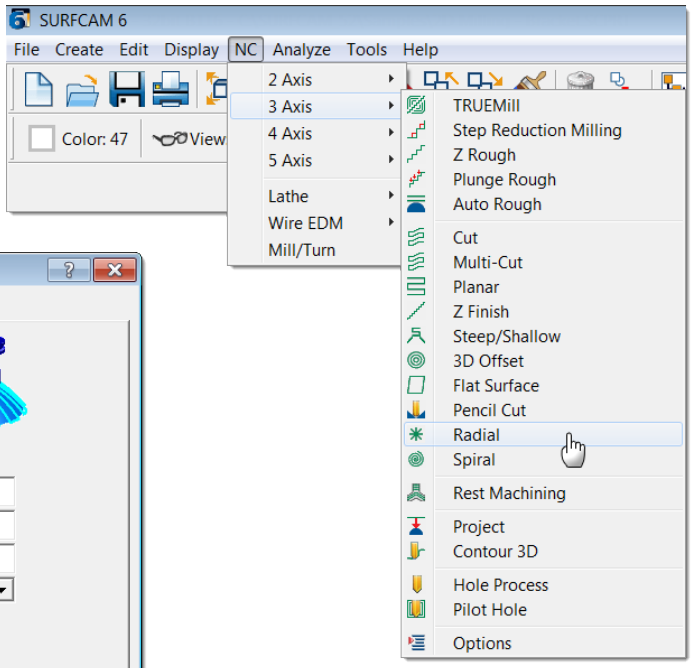


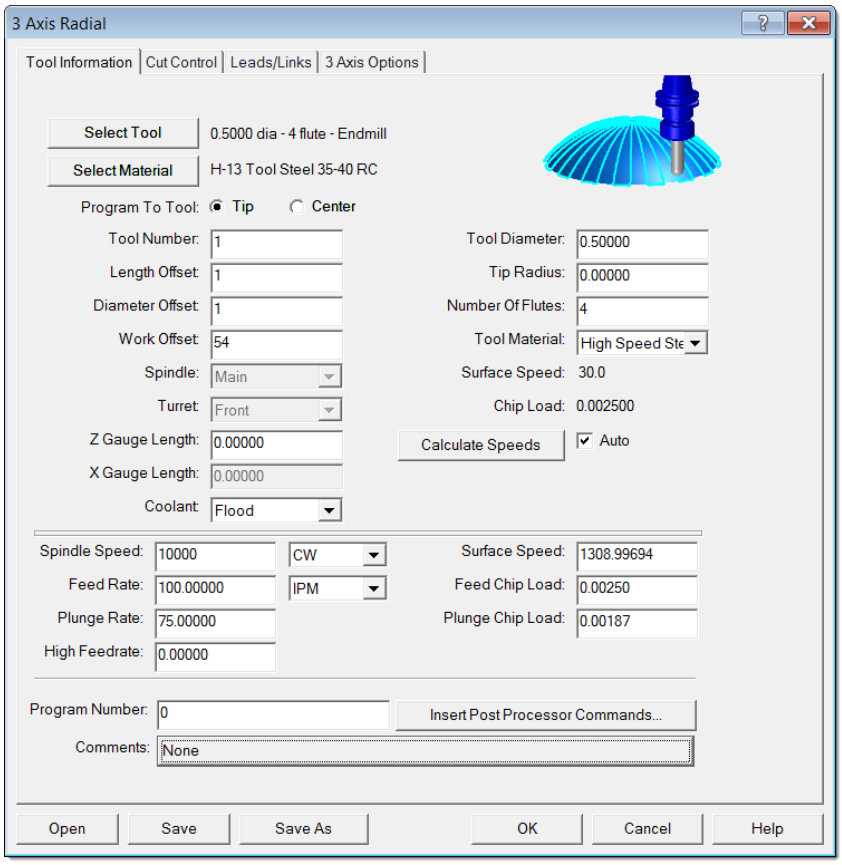
Toolpath Generation

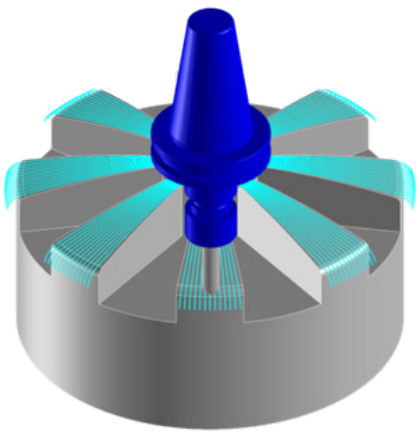
New "Radial" >>



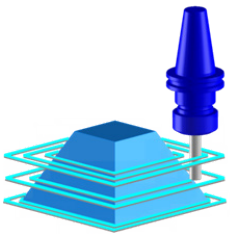
- The New Radial Toolpath starts on a central point where the step-over is calculated along the circumference of the circle of the radius you define. This machining strategy is most effective on areas that include shallow curved surfaces and circular areas as the passes are spaced along the XY-plane (step-over), and not the Z-plane (step-down)
- Included in the "3-Axis Advanced Edition" System Level
- Sample programmed part provided in Sample files (3DMilling - Radial Part.SCPRT)
- See the Help System for more information
- Watch the video here





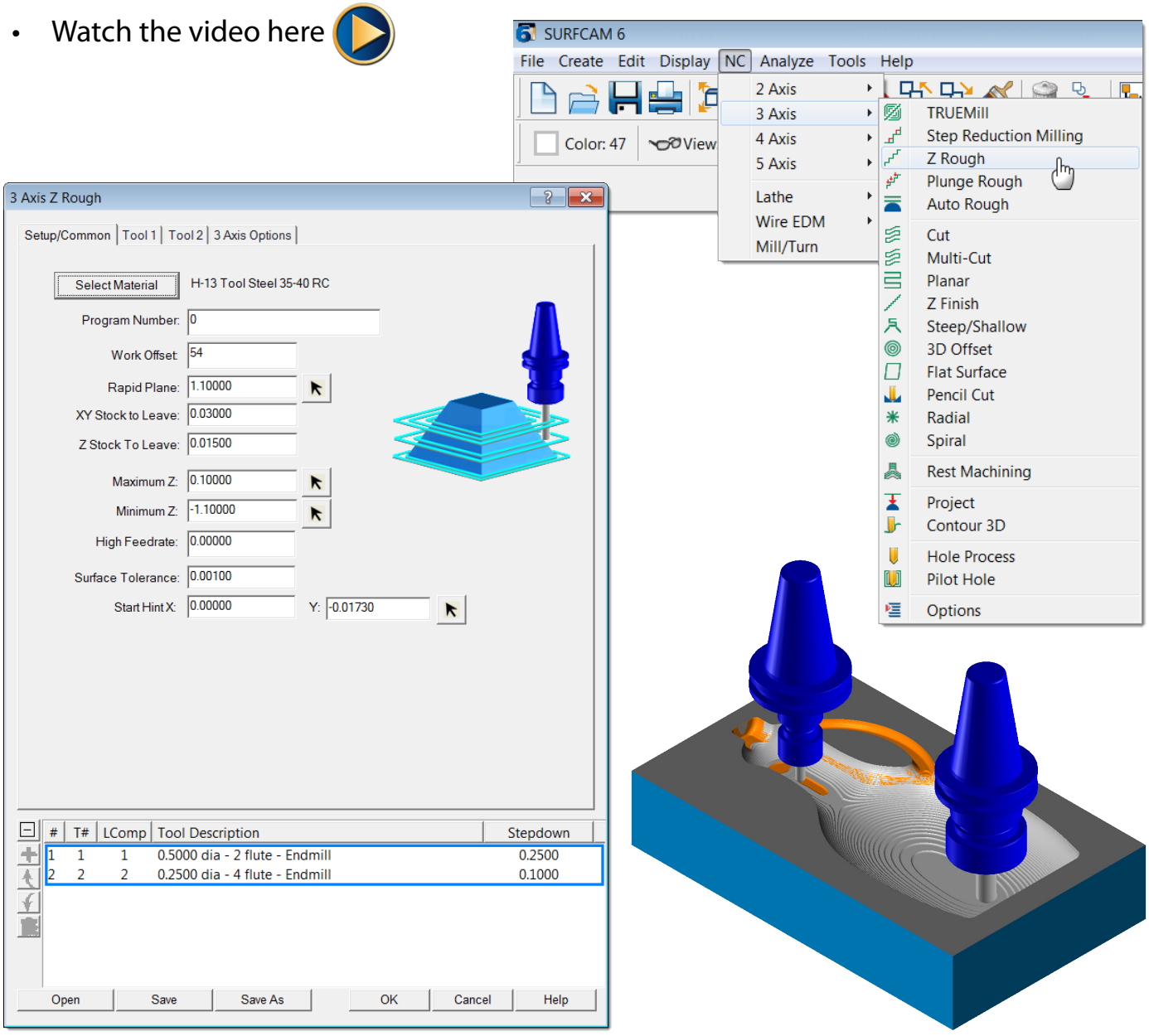


Toolpath Generation



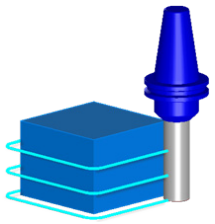
New "RestRoughing" in Z-Rough >>

- RestRoughing is part of the Z-Rough interface and options
- Multiple tools allowed & supports ALL tool types – Not just ball tools
- Included in the "3-Axis Advanced Edition" System Level
- Utilizes secondary tools to clean up areas left uncut by the initial, larger tool
- See the Help System for more information
- Watch the video here

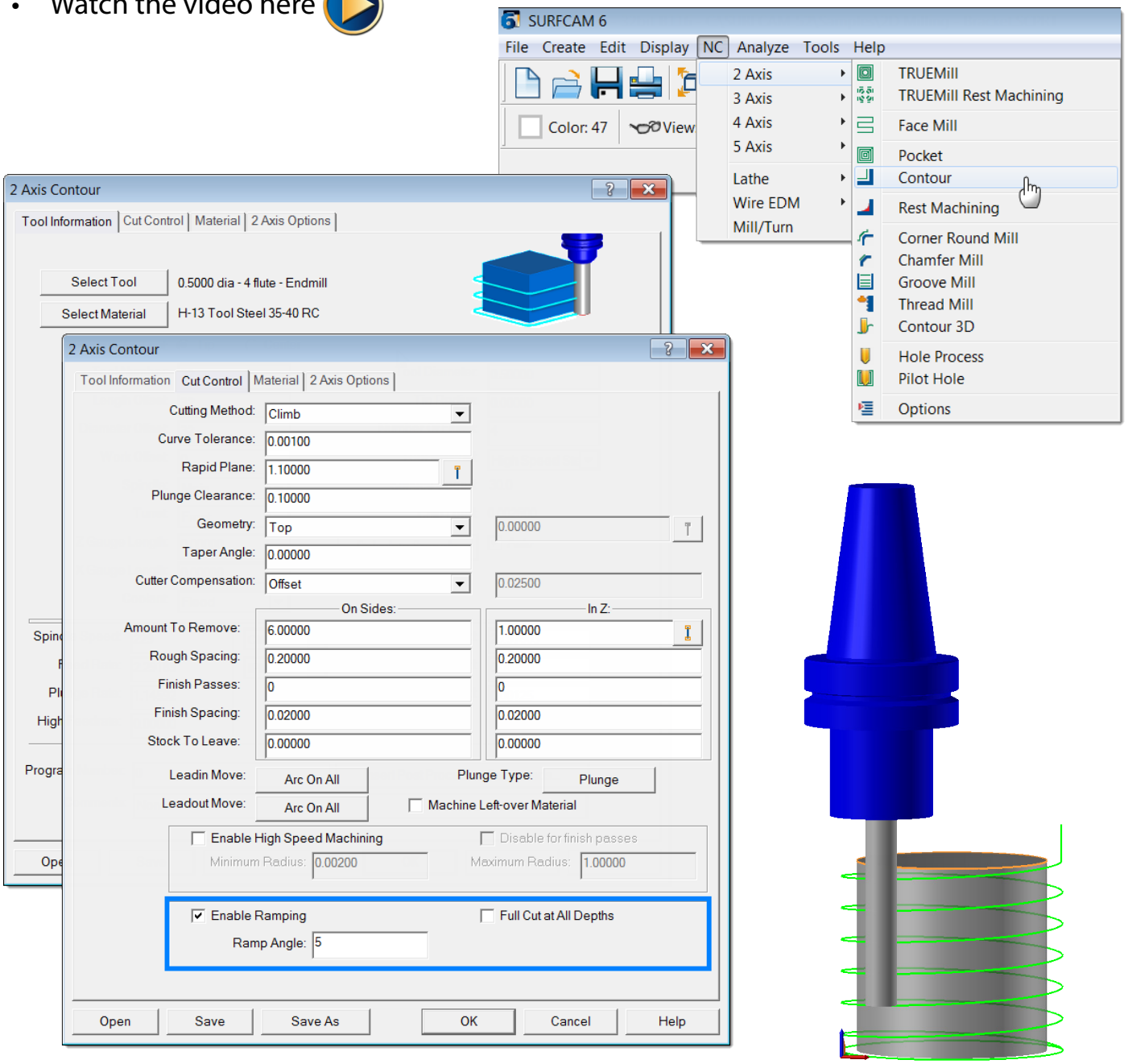


Toolpath Generation

New Contour "Ramping" >>



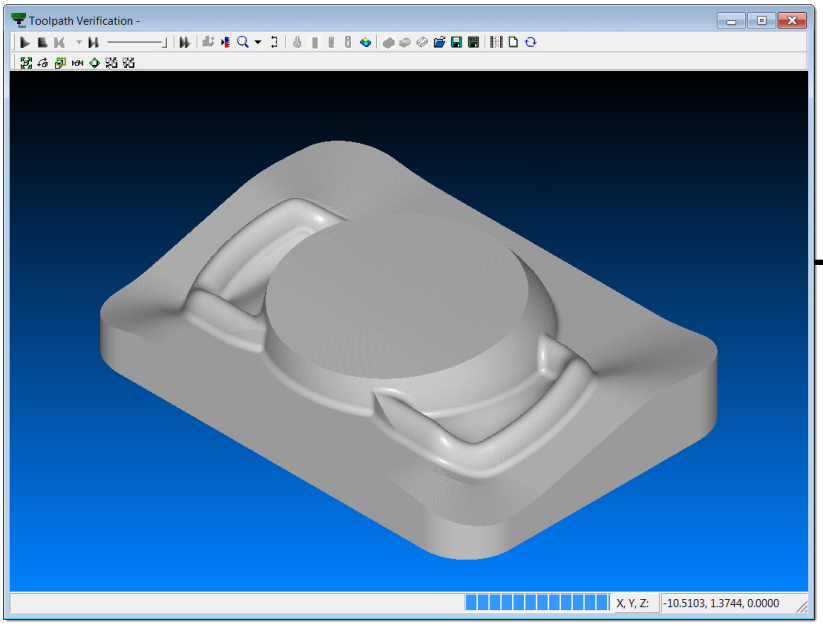
- Provides ramp-milling along a contour
- Included in the "2-Axis Base Edition" System Level
- See the Help System for more information
- Watch the video here



Verification

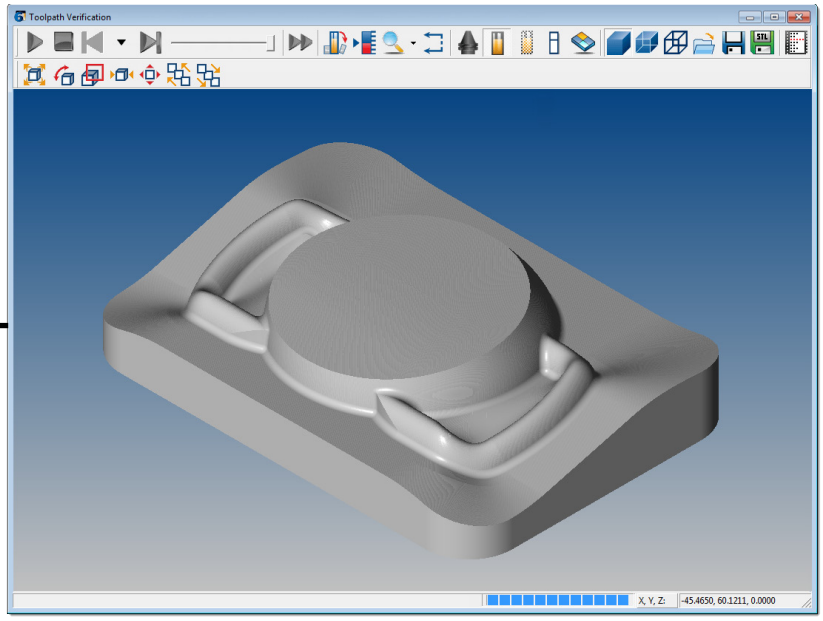
Improved Memory Management >>

- Improved performance for all SURFCAM Verification types
- Both in 32 Bit and 64 Bit
- Benchmark Results: 32 bit SURFCAM V5.2 vs 32 bit SURFCAM 6
- Benchmark System: Dell Precision M6400 Laptop, Windows 7 32bit, 4gb ram, NVIDIA Quadro FX 3700M w/ 1gb memory



SURFCAM V5.2
Standard Verification =
22 min. 50 sec.

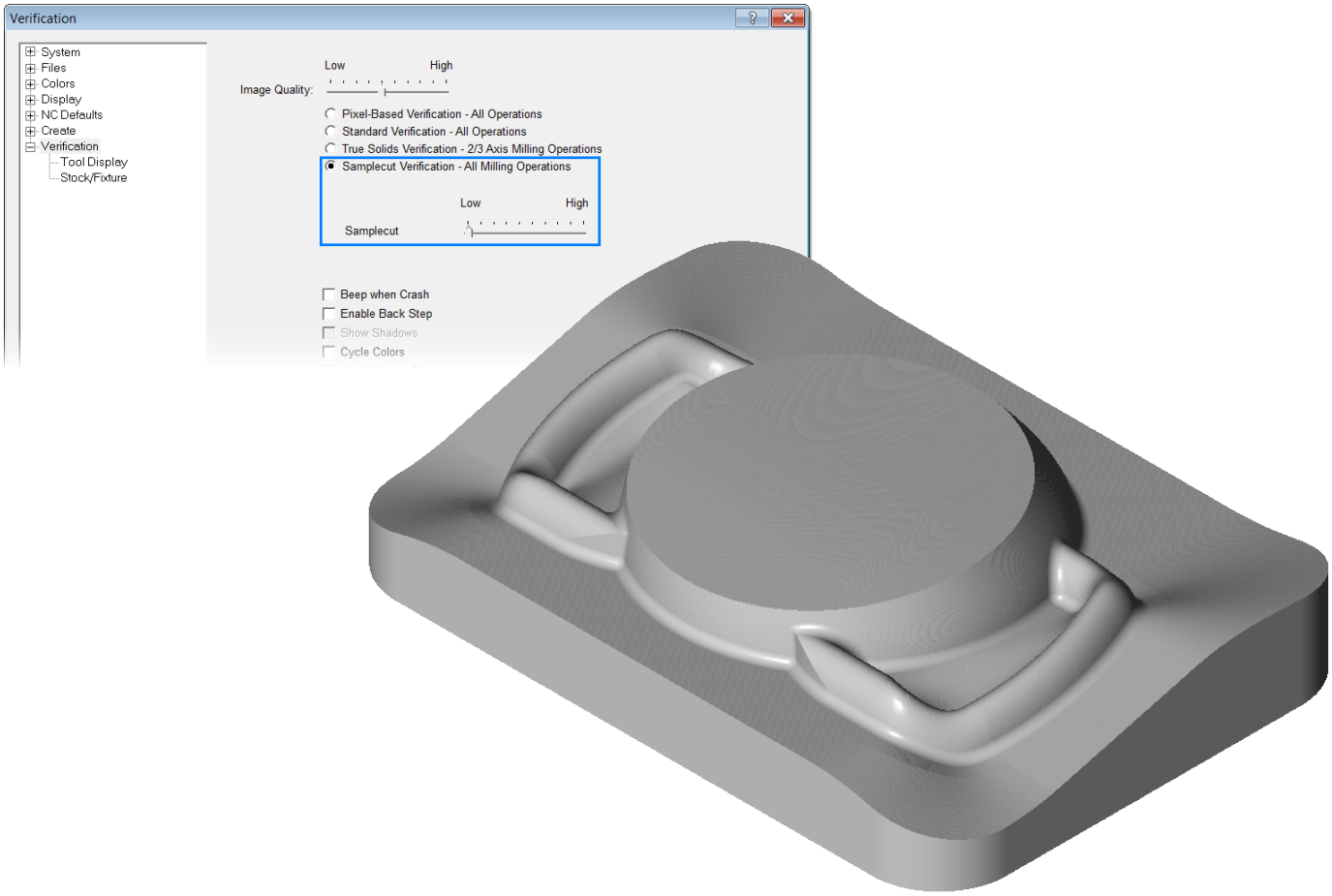
SURFCAM 6
Standard Verification =
9 min. 20 sec.



Verification

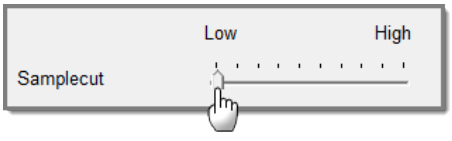
New "SampleCut" Verification >>

- SampleCut works on ALL Milling Operations
- SampleCut is a new option setting for Verification types
- Ability to change refresh rate and use compare feature
- SampleCut Verification will have same functionality in both 32 Bit and 64 Bit versions
- Benchmark System: Dell Precision M6400 Laptop, Windows 7 32bit, 4gb ram, NVIDIA Quadro FX 3700M w/ 1gb memory
- Watch the Video here



SURFCAM 6 / 32 bit

Standard Verification = 9 min. 20 sec.

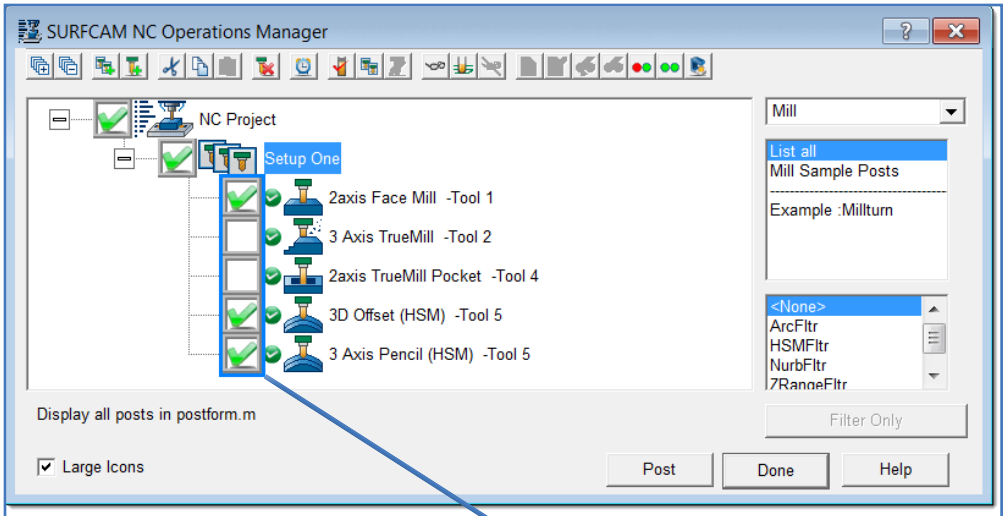


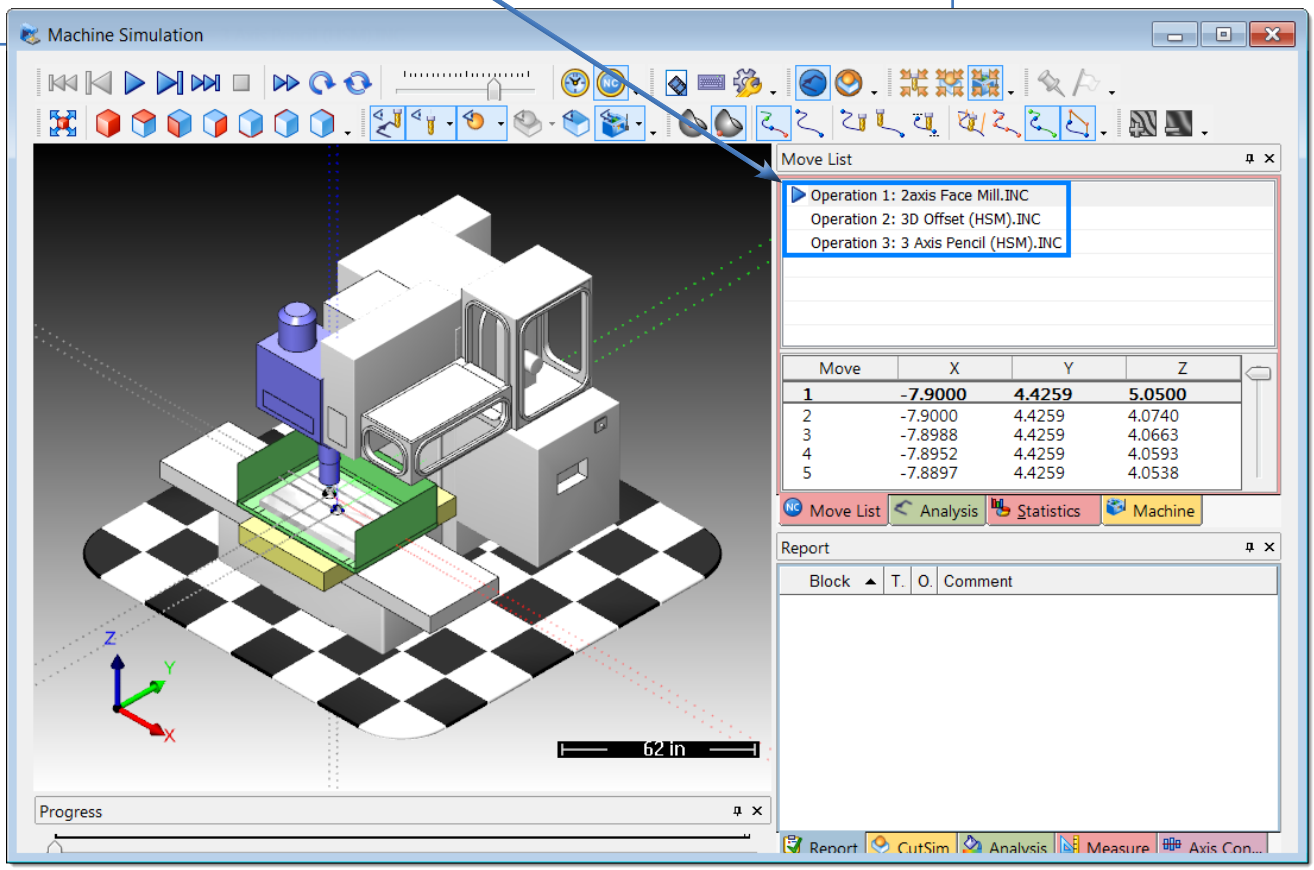
Sample Cut = 2 min. 15 sec. — Sample Cut Refresh Rate set to Default

Operations Manager

Machine Simulation Support >>

- Operations Manager check box now supports Machine Simulation
- Ability to run only checked items in Machine Simulation

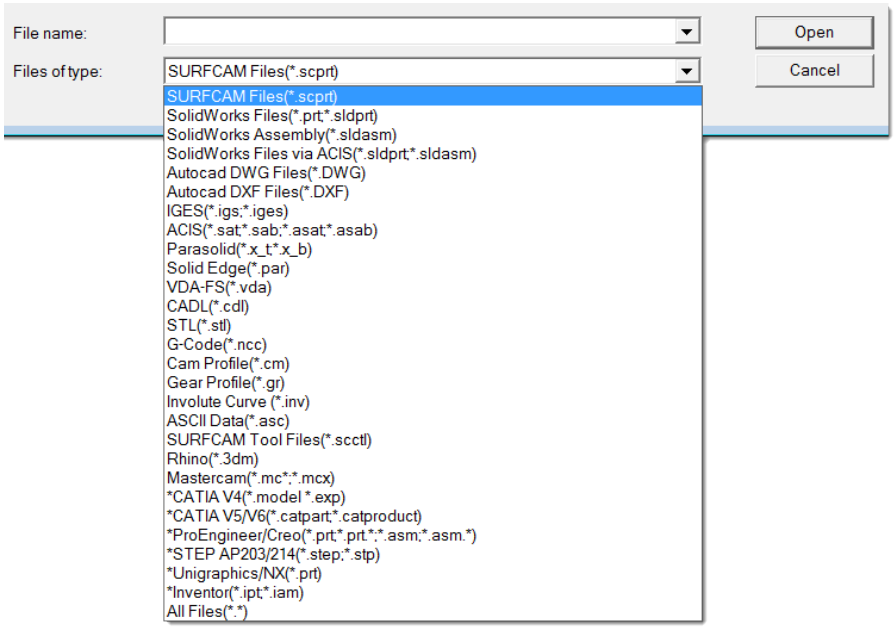




CAD Translators

Updated CAD Translators >>

- CATIA V4 .model, .exp, .session -- CATIA 4.1.9 – CATIA 4.2.4
- CATIA V5 R2-R21, CATIA V6 R2012** .CATPart, .CATProduct
- IGES .igs, .iges -- Up to 5.3
- Inventor .ipt, .iam Version 6 - 11, 2008 - 2012
- ACIS .sat, .sab, .asat, .asab -- ACIS 1.0 - ACIS R22
- Parasolid .x_t, .xmt_txt, .x_b, .xmt_bin -- 10 – 24.0.133
- ProEngineer/Wildfire/Creo .prt, .prt.*, .asm, .asm.* -- 16 – Wildfire 5 – Creo Version 1
- SolidWorks .sldprt, .sldasm -- 98 – 2012
- STEP .stp, .step -- AP203, AP214 (Geometry Only)
- Unigraphics/NX .prt -- 11 to 18, NX to NX8
- VDA-FS .vda -- 1.0 & 2.0
- SolidEdge – ST4
- AutoCad – 2012
- Mastercam – Version 8 – X6



Note:

Legacy (.dsn) files are no longer supported in SURFCAM 6
(To work with .dsn files in SURFCAM 6 they must first be opened in a previous version and saved as a .scprt file)

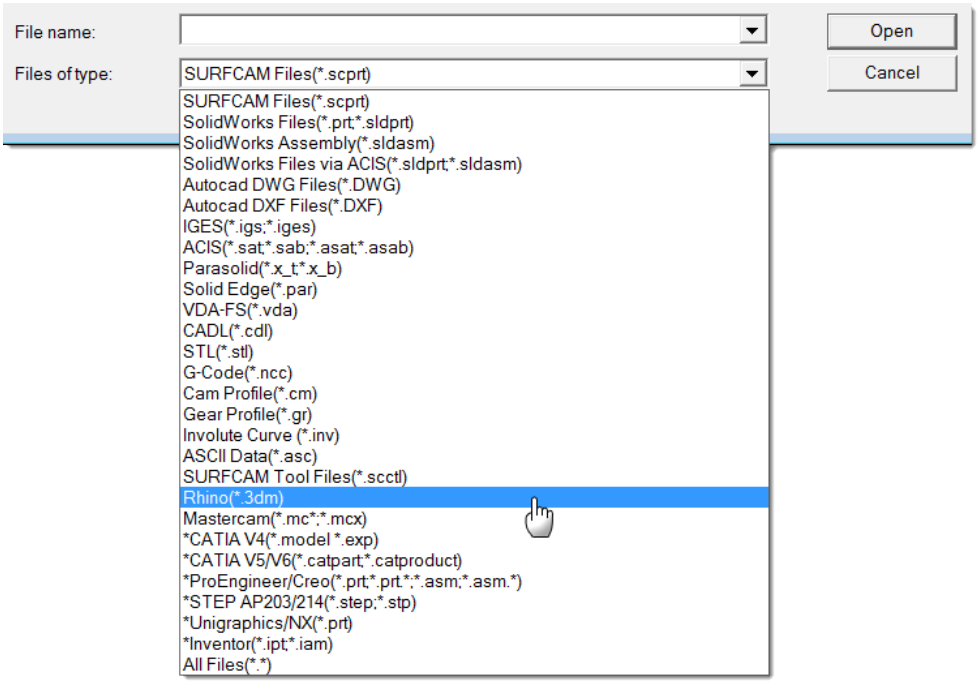
** CATPart and CATProduct files must be moved from the ENOVIA central data store via CATBak.

CAD Translators

New RHINO Translator >>

- Included in SURFCAM 6 standard list of translators
- Supports latest version of Rhino V4.0
- Supported entity types listed below:

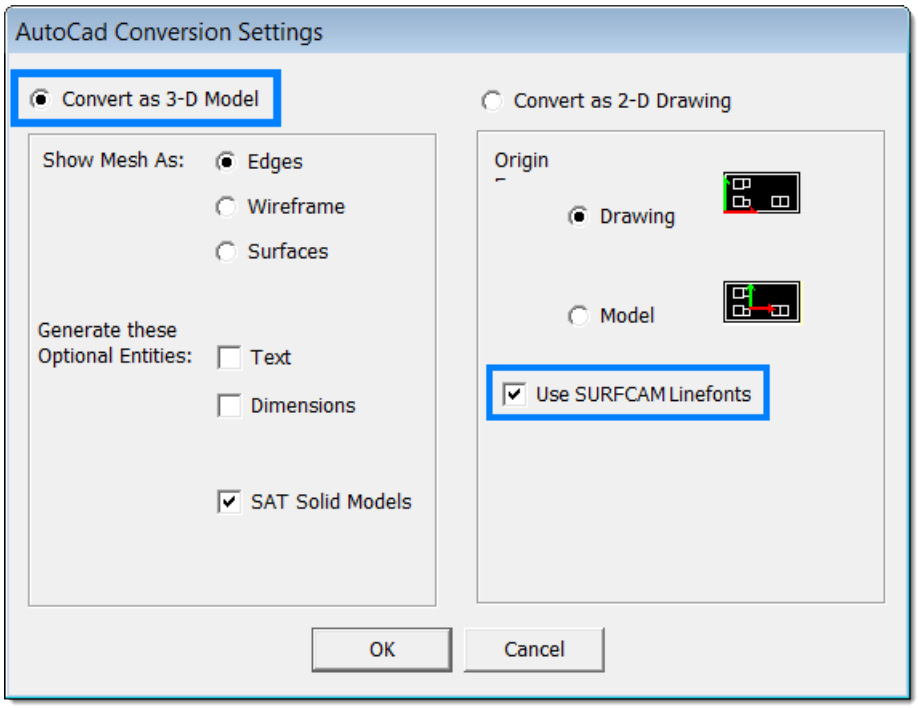
No.	Entity	Rhino Type	SURFCAM Type
1	Line	ON_LineCurve	SC_Line
2	Polyline	ON_PolylineCurve	SC_Pline
3	Arc	ON_ArcCurve	SC_Arc
4	NurbsCurve	ON_NurbsCurve	SC_NurbCurve
5	PolyCurve	ON_PolyCurve	SC_Line, SC_Pline, SC_Arc, SC_NurbCurve
6	CurveOnSurface	ON_CurveOnSurface	SC_NurbCurve
7	CurveProxy	ON_CurveProxy	
8	NurbsSurface	ON_NurbsSurface	SC_NurbSurface
9	RevSurface	ON_RevSurface	
10	SumSurface	ON_SumSurface	
11	PlaneSurface	ON_PlaneSurface	
12	SurfaceProxy	ON_SurfaceProxy	
13	Mesh	ON_Mesh	
14	Brep	ON_Brep	
15	Point	ON_Point	SC_Point
16	Notes	ON_3dmProperties.m_Notes(ON_3dmNotes)	SC_Text
17	Text	ON_TextEntity2	

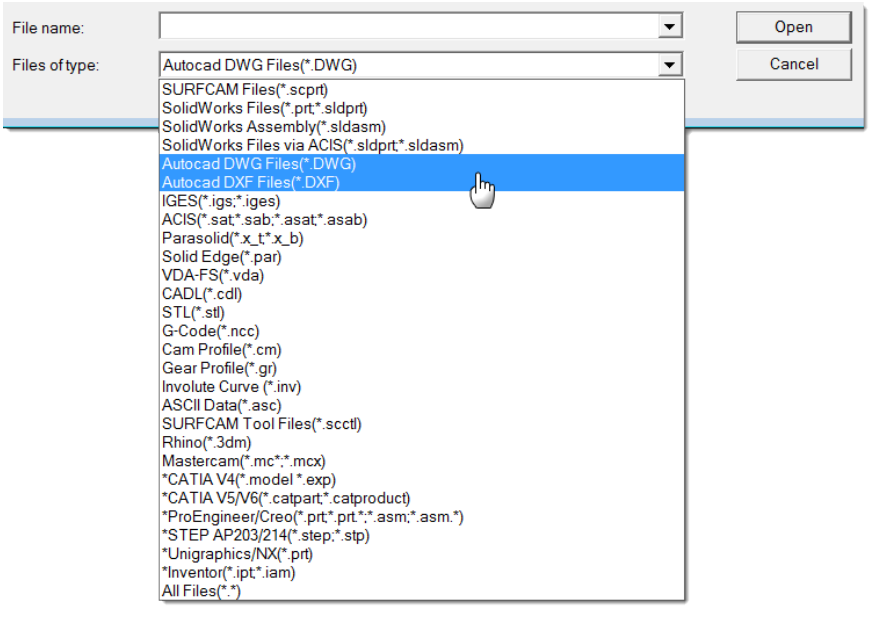


CAD Translators

Updated DXF/DWG Translator >>

- DXF/DWG Translator now recognizes hidden (dashed) lines as single , selectable entities
- 3D geometry support when "Convert as 3-D Model" is selected

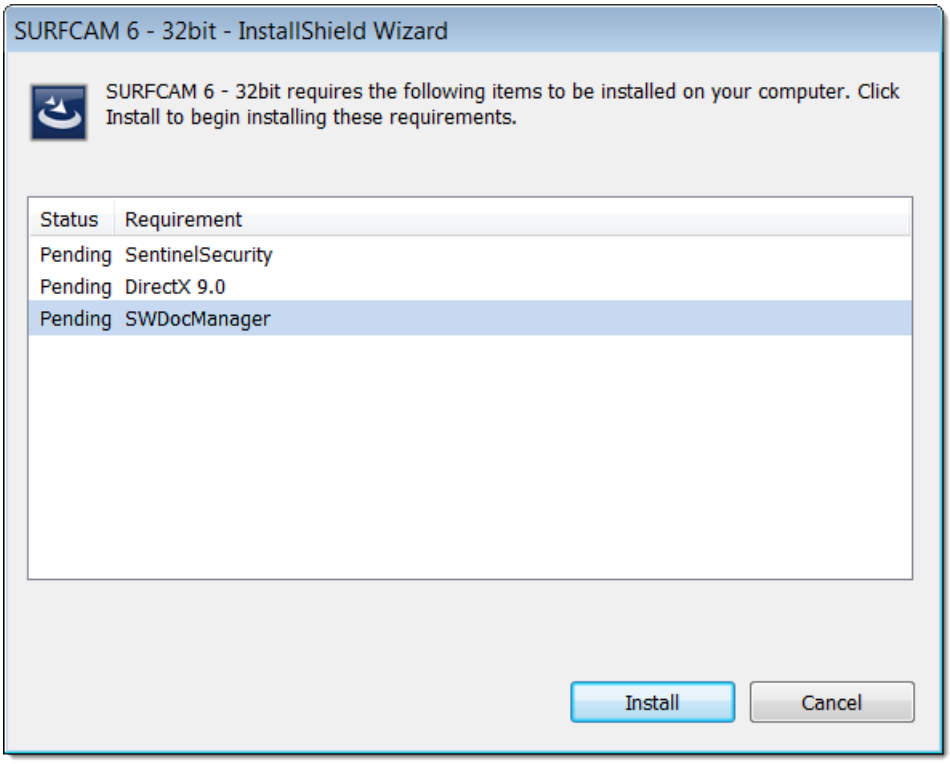




SolidWorks

SolidWorks Associativity >>

- Latest version of the SolidWorks 2012 Document Manager is installed along with SURFCAM 6
- SURFCAM 6 supports SolidWorks 2012 parts, assemblies, sketches and configurations in both 32 & 64 bit operating systems


SURFCAM 6 - 32bit - InstallShield Wizard
SURFCAM 6 - 32bit requires the following items to be installed on your computer. Click Install to begin installing these requirements.
Status
Requirement
Pending SentinelSecurity
Pending DirectX 9.0
Pending SWDocManager
Install
Cancel

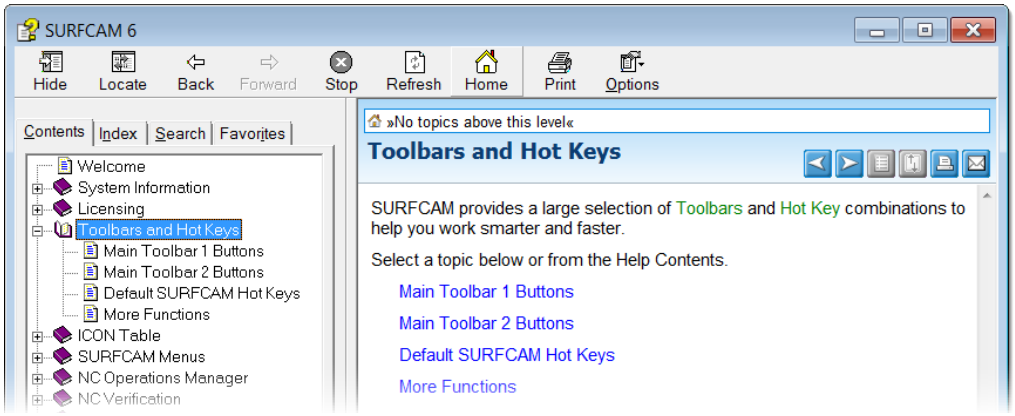
Default Settings

Changes to Default Settings >>

- "Display The Add Stock/Fixture Dialog On Startup" setting is now unchecked by default
- The default decimal precision for Metric installs has been changed to 3 places
- The User Interface Icon size has been changed to Large by default, users can revert back to small icons by right-clicking the toolbar and selecting "small icons"
- Multi-Select is now set to "ON" by default for all operations
- The default "Selection Proximity" has been updated from 1% of the screen size to 2.5% of the screen size, this improves functionality with higher resolution screens
- The default "Finish Pass Overlap" for TRUEMill finish passes has been updated from 0.02" to 0.08"
- The functionality for Hot Key: CTL + ALT + M now cycles through the masks (Off>Mask1>Mask2>Mask3>Mask4>Mask5>Off>Mask1...)
- The default color for highlighted line elements has been changed from yellow to orange
- Verification is now set to "Cycle Colors" by default
- There is now a new option to set the "Dialog Tab Color/Style" in *Tools>Options>Display>System*

Productivity Tools

Updated Function & Hot Keys >>



Default Hot Keys	SURFCAM Function
F1	Display Context-Sensitive Online Help.
Alt + F4	Exit SURFCAM
Alt + Tab	Switch between applications
Alt + Arrow Keys	Screen Rotate
Arrows	If you click Rotate or Pan on the Display menu, arrows rotate or pan the image in 5 increments around the vertical axis and the horizontal axis. In a dialog box, the arrows move the text cursor 1 character in the indicated direction.
Backspace	Display the previous menu or -in a dialog box- delete the last character typed.
Ctrl + Esc	Display the Start menu
Ctrl + Alt + M	Toggle Mask ON and OFF
Ctrl + A	Shade the visible surface. To toggle ON/OFF, press Ctrl + A once again. Display > Shade Menu
Ctrl +B	User Application menu
Ctrl + C	Display CView dialog box.
Ctrl + D	Delete Menu
Ctrl + F	Automatically fit the current geometry to the extent of the window.
Ctrl + I	Zoom current view
Ctrl + L	Display the Layers dialog box.
Ctrl + M	Display the Mask Selection Settings dialog box.
Ctrl + N	NC Operation Manager dialog
Ctrl + O	Current color bar
Ctrl + P	Enable the Pan function.
Ctrl + MMB (middle mouse button)	Enable Pan for current view
Ctrl + Q	Automatically Repaint the current image.
Ctrl + R + Direction Arrows	Rotate Display using the arrow keys
Ctrl + S	Save As
Ctrl + T	Display the Tap/Drill Chart
Ctrl + U	Automatically scale the view by ½ .

Default Hot Keys	SURFCAM Function
Ctrl + V Spacebar	Display Views dialog box.
Ctrl + Z Ctrl + I	Enable the Zoom In function.
Ctrl + Arrow	Screen Pan
CTRL+0	Previous view number
CTRL+1	Top view
CTRL+2	Front view
CTRL+3	Back view
CTRL+4	Bottom view
CTRL+5	Right view
CTRL+6	Left view
CTRL+7	Isometric View
CTRL+8	Axonometric View
CTRL+9	Next view number
Z	Display the Analyze Elements menu
Enter	Accept information entered in a dialog.
ESC	Cancel the current dialog and display any previous one or escape from the current menu and display the Main menu.
Keypad + or -	Rotates in 5 increments around the Z axis when you click Rotate on the display menu.
Shift + Tab	Moves the cursor one field backward in a dialog.
Shift and +,-	Increase and decrease C-View Plane size
Tab	Moves the cursor one field forward in a dialog
Within Backplot:	
Arrow keys	step tool forward and backwards
Spacebar or Enter	Play and Pause the animation
Tab	Toggles through the tool options (solid, translucent, wireframe, blip)
Shift + Tab	Show/Hide the tool holder
Within Edit NC:	
Arrow keys	step tool forward and backwards
Tab	Toggles through the tool options (solid, translucent, wireframe, blip)
Shift + Tab	Show/Hide the tool holder

More Functions	SURFCAM Default Hot Keys
Display CView dialog box.	CTRL+C
Display Views dialog box.	CTRL+V Spacebar
Change View.	Previous view number CTRL+0 Top view CTRL+1 Front view CTRL+2 Back view CTRL+3 Bottom view CTRL+4 Right view CTRL+5 Left view CTRL+6 Isometric View CTRL+7 Axonometric View CTRL+8 Next view number CTRL+9
Shade the visible surfaces or remove the shading. Display > Shade Menu	CTRL+A
Analyze Elements	Z
Display the Color Selection dialog box.	CTRL+O
Display the Layers dialog box.	CTRL+L
Display the Mask Selection Settings dialog box.	CTRL+M
Toggle Masking on or off.	CTRL+Alt+M *
Display the Tap / Drill Chart.	CTRL+T
Display the previous menu.	Backspace ESC

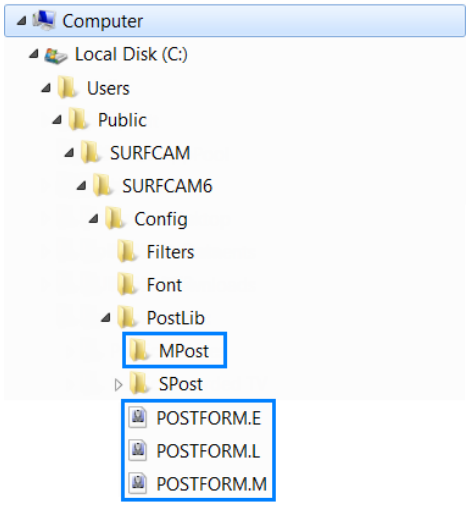
Post Processing

Updated MPost Version >>

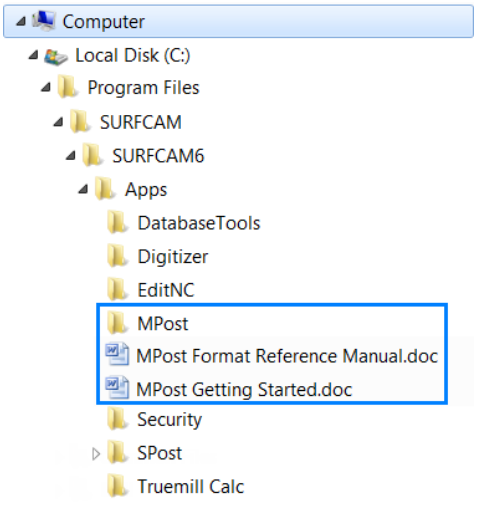
- Updated versions of MPost, LPost and Epost in SURFCAM 6 (see User Manual)
- New & Updated Post Processors in the SURFCAM standard library
- New Documentation & Updated User Manual
- See the Help System for more information

Agie EDM.E2	Fagor8055.m3	HaasVFSeries.m3	Mori Seiki.L2
Anilam_Conversational.M3	Fanuc 10M 4 Axis.m4	HAASVF-SUBS.M3	Mori Seiki2.L2
APTCL.m3	Fanuc 10T.L2	HANSVEDT.E2	OKK 4 Axis Fanuc.M4
APTCLFILE.M3	Fanuc 15M High Speed.M3	HANSVEDT-COLUMNAR.E2	Okk Fanuc.M3
AXYZ Router.m3	Fanuc 15M with Tool Preselect.M3	Hardinge Fanuc 0T .I2	OKK HM4 with Tool Preselect.m3
Bostomatic.M3	Fanuc 15MB with G5.1.M3	Hardinge VMC600 II Fanuc 15MB.m3	Okuma.L2
Boxford MM.m3	Fanuc 15MB.m3	Heidenhain TNC 415.M3	Okuma_P200-Horiz.m3
Bridgeport BOSS DX32.m3	Fanuc 16M with Tool Preselect.M3	Heidenhain TNC 2500 Conversational.m3	Okuma2.L2
Charmilles EDM.E2	Fanuc 16M.M3	Heidenhein TNC 415 with Subs.M3	OKUMA-OSP200P.M3
CHARMILLES.E2	Fanuc 18Mi, MATSUURA HOR B+ and B-.M4	HITACHI-VK45.M3	OkumaOSP700m.m3
Colchester.I2	Fanuc 18Mi, MATSUURA HOR B0 - B360.M4	Hurco 81004 4 Ax.m4	OkumaOSP700mSubs.m3
COMPACT2.M3	FANUC AICC PreTool.M3	Hurco Ultimax III Version 8.M3	Prolite1000.m3
Davince mill.m3	FANUC HPCC PreTool.M3	Huron-Inch.m3	Prolite2000.m3
DIGITIZE-DATA.M3	FSmill.m3	HYUNDAI-FANUC0ITD.L2	ProtoTRAK AGE3.M3
DYNAMYTE-2400C.M3	FSWIatheVWM.I2	Kitamura Mycenter - Index X 4 axis.M4	Prototrak.M3
Dynapath Delta 30 Conversational.M3	FSWIatheWLcentroid2010.I2	Kitamura Mycenter - Index Y 4 Axis.M4	ProtoTrak_2axis_Conversational.M3
DYNAPATH Delta 30.m3	Generic EDM.E2	Kitamura MYCENTR.M3	ProtoTrak_Conversational.M3
DYNAPATH-DELTA50C.M3	Generic Lathe.L2	Makino - Fanuc 15M.M3	Puma S240.I2
Enshu.m3	GENERIC.L2	MAKINO-A51-SUBS.M4	RokuRoku Fanuc 0M.m3
Fadal 4 axis.M4	GENERIC.M4	Matsurra Yasnac MX2 - Index X - 4 Axis .m4	Shoda 3X.m3
Fadal Format 1 - Custom .m3	GENERIC-SUBS.M3	Matsuura Yasnac Preselect and subs.M3	ShopBot V3.m3
Fadal Format 1 - Generic.M3	Haas Horizontal .m4	MAZAK - Mazatrol .m3	Siemens 810.M3
Fadal Format 1 High Speed.M3	Haas SL Series - G71_G72 cycles.L2	MAZAK-MATRIX.M3	Smartcnc.m3
Fadal Format 1 Rigid Tap.M3	Haas SL.L2	MIKRON-TNC430ISO.M3	Sodick EDM.E2
Fadal Format 1 with Subs.M3	Haas VF-9 4x Index X (A) Axis.m4	MILLTRONICS-CENTURION6.L2	Speclite.m3
Fadal Format 2 with Subs.M3	Haas VF-Series 4x Index X (A) Axis.m4	MILLTRONICS-CENTURION7.M4	SUPER MAX w-Subs .M3
FADAL-F1-RIGIDTAP.M3	Haas VF-Series.m3	Mitsubishi EDM.E2	Taiyo Seiki 3T.I2
FADAL-F1-SUBS.M3	Haas With M97 Sub Programs 54-59.m3	Mitsubishi w_N safe start.M3	Thermwood Model 70.M3
FADAL-F1-VMC.M4	Haas With M98 Sub Programs 54-59.m3	MMpro.m3	ThermWood_40.M3
Fagor Lathe.L2	Haas_4axis_indexing.m4	Mori Seiki - G71_G72 cycles.L2	Vickers Acramatic A2100 MC control.m3
Fagor.M3	HaasVF w Tool Descriptions.M3	Mori Seiki MF T6.I2	Yasnac 2000B.L2
FAGOR-8050MC.M4	HAASVF.M4	Mori Seiki with Stock Stop.L2	Yasnac I80 with 54 Subs.m3

Post Locations



Post Documentation



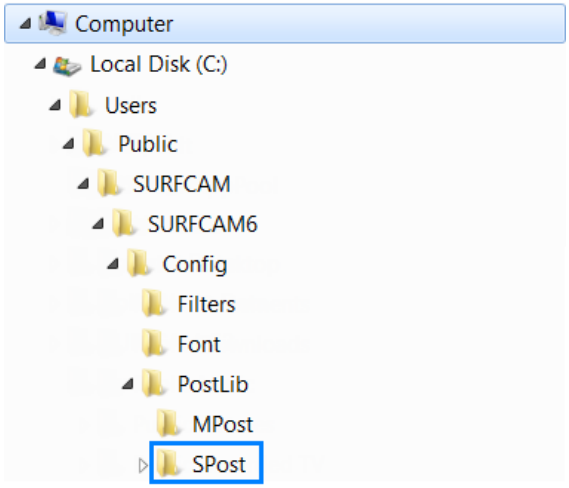
Post Processing

Updated SPost Version >>

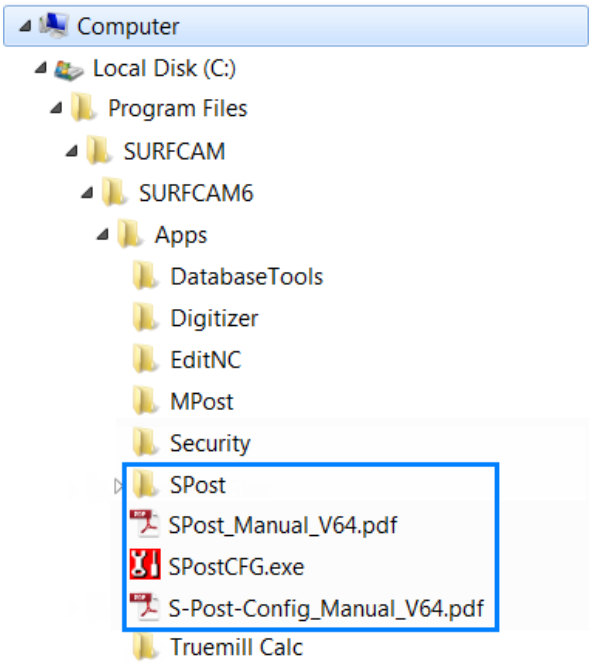
- Updated version of SPost (6.4)
- New & Updated Post Processors in SURFCAM standard library
- New Documentation & Updated User Manual
- See the Help System for more information

LEGACY SPOST - Fanuc 15M
Anderson Router {3 Axis VMC} with Fanuc 16M control
Bostomatic 32GS {3 Axis VMC} with BDC3200X control
Bridgeport EZ-TRAK {3 Axis VMC} with Bridgeport Control
Axiom TBD {4 Axis VMC} with Axiom Control
Excellon Router {3 Axis VMC} with Excellon OM control
Fadal 2216 {3 Axis VMC} with CNC88HS Control Format 1
Fadal 2216 {3 Axis VMC} with CNC32MP control
HAAS VF-Series {3 Axis VMC} with Haas Control
Cincinatti Arrow {3 Axis VMC} with Acramatic 2100 control
Hitachi HS500 {3 Axis VMC} with Fanuc 16i-M Control (subs)
Hurco BMC 30 {3 Axis VMC} with Ultimax Control
Komo 512 Router {3 Axis VMC} with Fanuc 0M Control
Kuraki KBT -11 WA {3 Axis VMC} with Fanuc 15M Control
Mazak V405/25 {3 Axis VMC} with Mazatrol M-32 control
OKK VM5 {3 Axis VMC} with Mitsubishi 500 control
Servo TBD {3 Axis VMC} with IMPACT II control
Shoda NC-516 {3 Axis VMC} with SHODA/FANUC control
LEGACY SPOST - Haas VF-Series
SuperMax MAX-3 Rebel {3 Axis VMC} with FANUC OMC control
MATSUURA MC510V {3 AXIS VMC} WITH MITSUBISHI MX3 CONTROL
Daewoo MYNX500 {3 Axis VMC} with Fanuc 21MB control
Chevalier Falcon 2552VMC-L {3 Axis VMC} with Heidenhein TNC-426 control
Okada TBD {3 Axis VMC} with Fanuc Control
LEGACY SPOST - Fadal Format One
OKK with Fanuc 180is control
LEGACY SPOST - Dynapath Conversational
Kitamura with Fanuc 16IMA control
LEGACY SPOST - Mazak M2
Mori Seiki with Fanuc 18i control
Mitsubishi Wire with M500 ctrl
Sodick AQ325L 2x-4xSURF {EDM} with Sodick control
Mitsubishi FX-10 {WIRE EDM} with M500 control
EXAMPLE - Milltum Post
EXAMPLE - Bridge Mill Post
EXAMPLE - Dual Table Mill Post
EXAMPLE - 5 Axis Laser Post

Post Locations



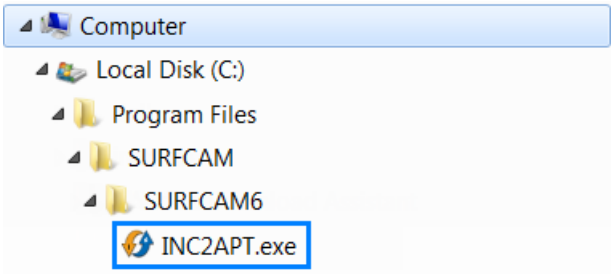
Post Documentation

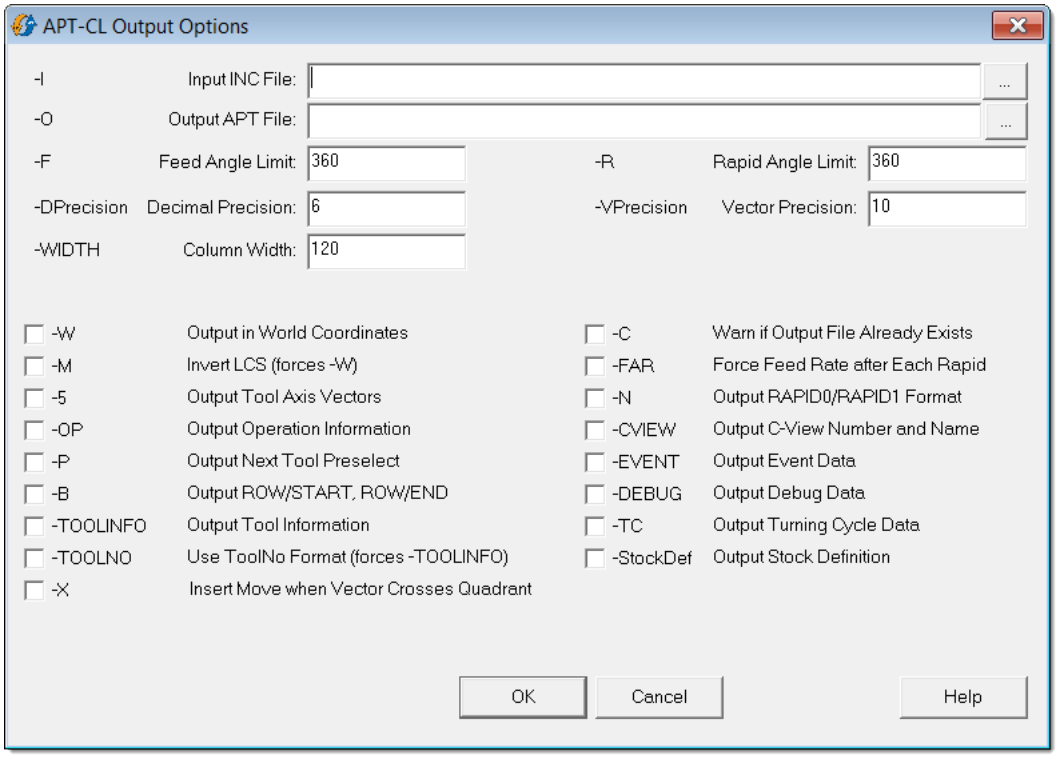


Post Processing

Updated INC2APT >>

- Updated inc2apt calls
- Cleaned up redundant SET/FEED & SET/PLUNGE records
- Addressed instances of missing FEDRAT/ records
- Added FEDRAT/ records after RAPID moves
- INC2APT has been enhanced to split PPRINT statements that exceed the maximum line length at a whitespace if possible. This works to consolidate Tool Lists by not breaking up long tool descriptions onto multiple lines

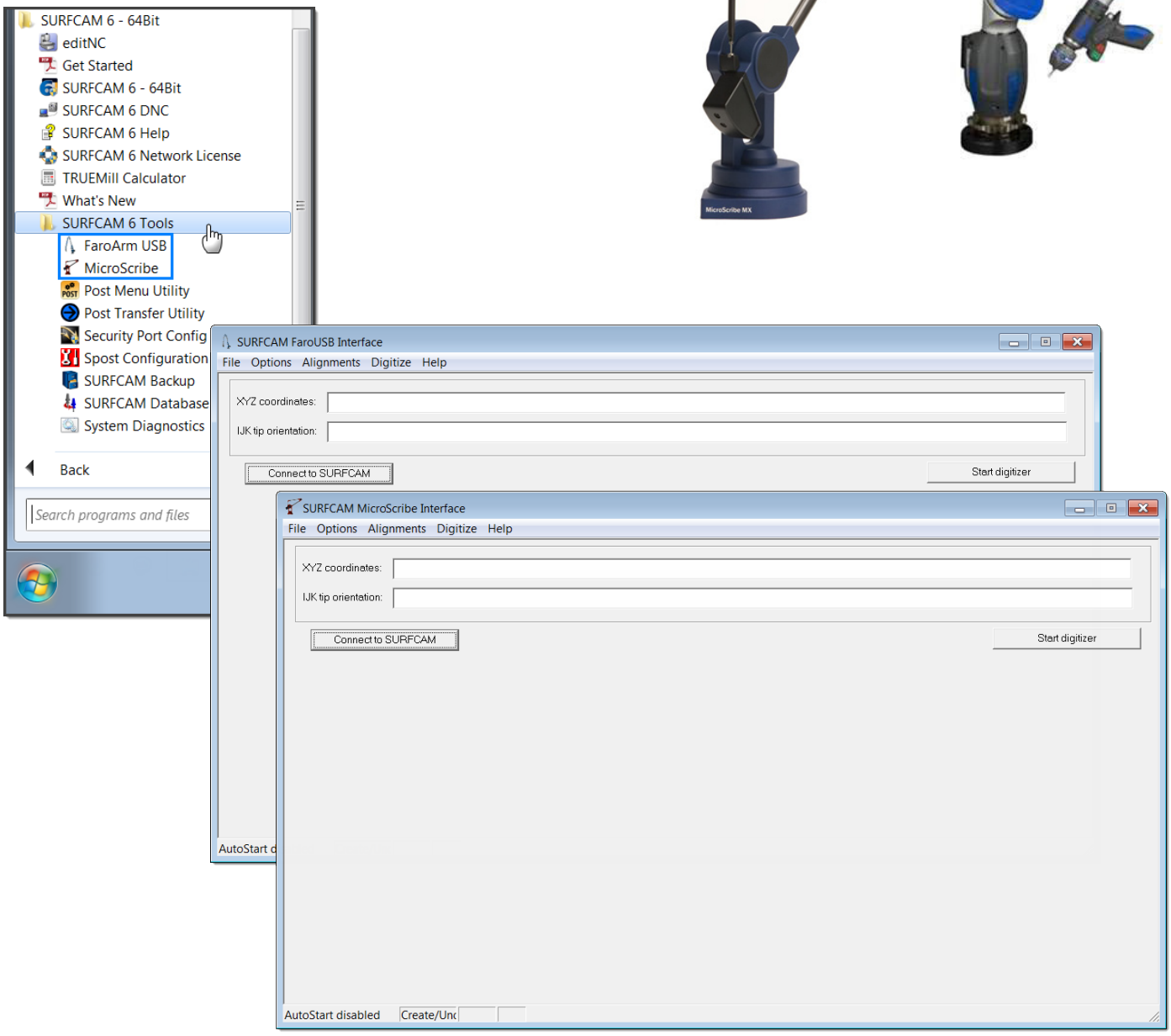



APT-CL Output Options
-I Input INC File:
-O Output APT File:
-F Feed Angle Limit: 360
-R Rapid Angle Limit: 360
-DPrecision Decimal Precision: 6
-VPrecision Vector Precision: 10
-WIDTH Column Width: 120
-W Output in World Coordinates
-M Invert LCS (forces -W)
-5 Output Tool Axis Vectors
-OP Output Operation Information
-P Output Next Tool Preselect
-B Output ROW/START, ROW/END
-TOOLINFO Output Tool Information
-TOOLNO Use ToolNo Format (forces -TOOLINFO)
-X Insert Move when Vector Crosses Quadrant
-C Warn if Output File Already Exists
-FAR Force Feed Rate after Each Rapid
-N Output RAPID0/RAPID1 Format
-CVIEW Output C-View Number and Name
-EVENT Output Event Data
-DEBUG Output Debug Data
-TC Output Turning Cycle Data
-StockDef Output Stock Definition
OK
Cancel
Help

Digitizer Interface

Updated Digitizer Interface >>

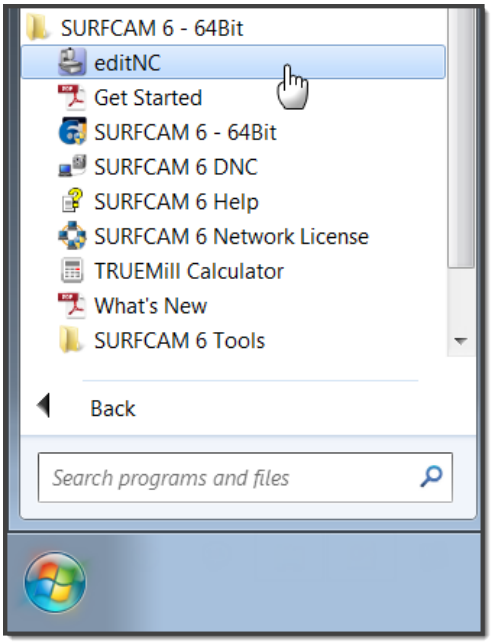
- Faro Arm support for USB in both 32 Bit & 64 Bit
- MicroScribe Arm support for USB & Serial in both 32 Bit & 64 Bit
- Updated for standard Probe sizes
- Updated user documentation
- See the Help System for more information

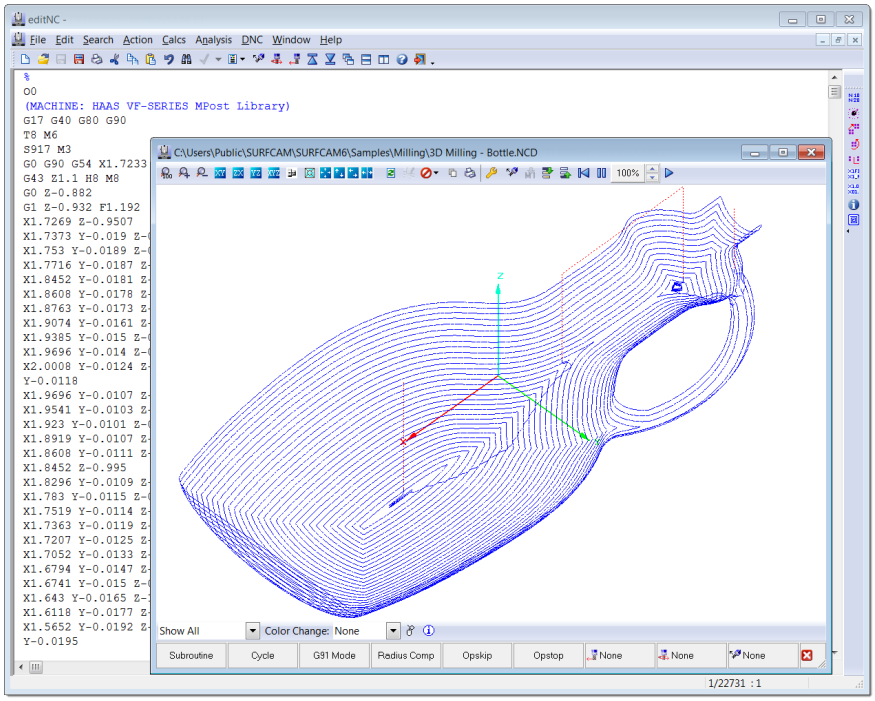


NC Editor

Updated editNC Version 9.1 >>

- Updated version of editNC
- New & improved compare function provides simpler interface, highlights individual word mismatches, and allows editing
- New "G-Macro" capability lets user written macros create toolpaths
- New conversion function converts between several CNC program formats
- Improved "Search for Files" dialog
- Print dialog now offers print preview and access to more printer properties
- Improved Find/Replace dialog with new "Show all matches" option
- New toolpath mirroring function and improved rotate function
- Enhanced program sequence numbering
- Improved support for multiple monitors
- Enhanced reference file capability
- New option to maintain a single editor instance
- Several simplified and improved dialogs

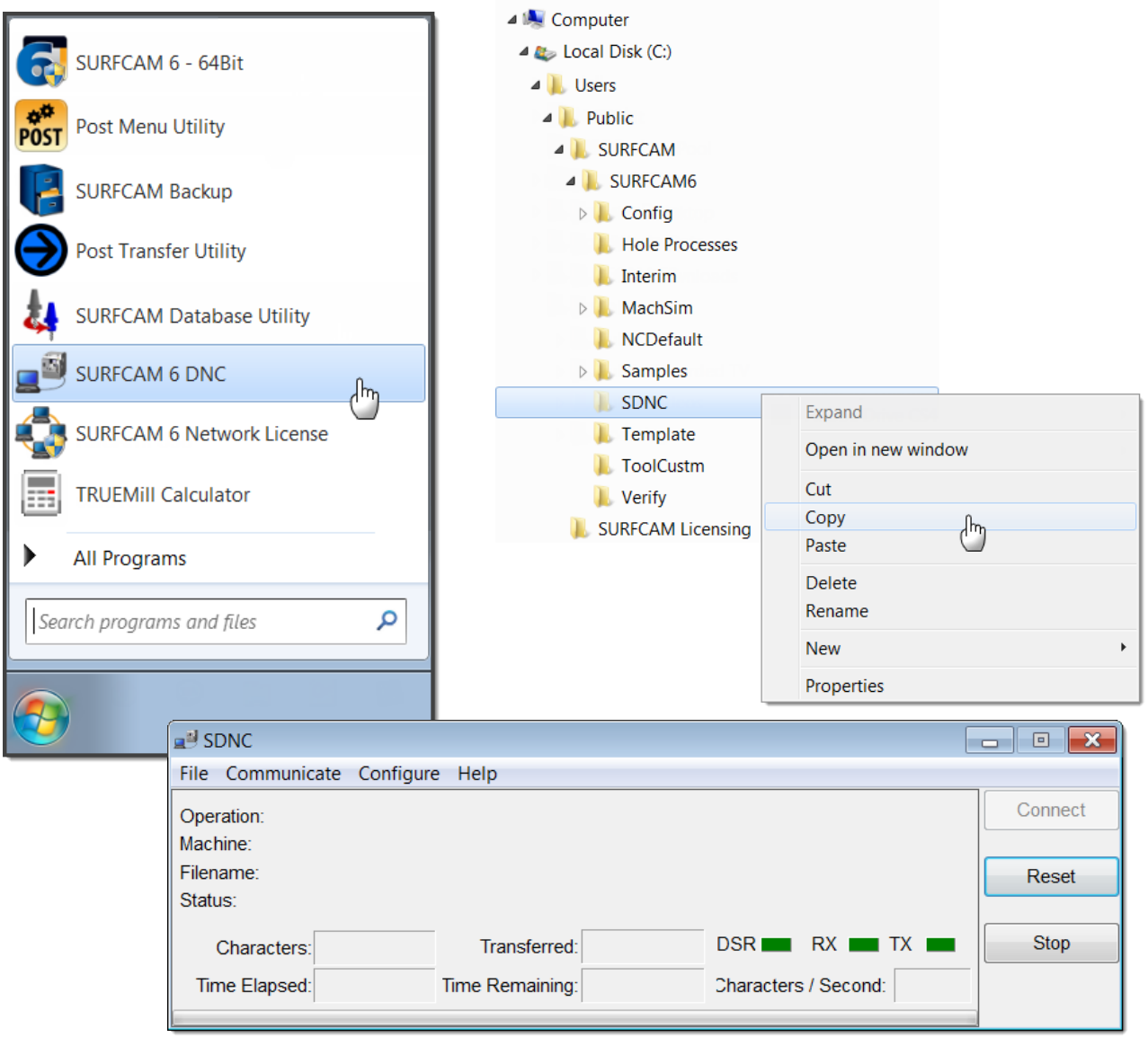




DNC

Updated SDNC >>

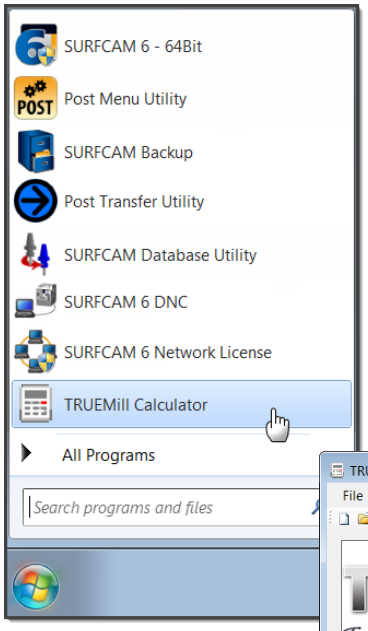
- Updated version of SDNC
- Increased number of ports available from 9 to 1024
- Improved port availability checking in terminal mode
- More modern "Look and Feel"
- Copy and Paste SDNC directory onto any PC to use
- Improved Help file

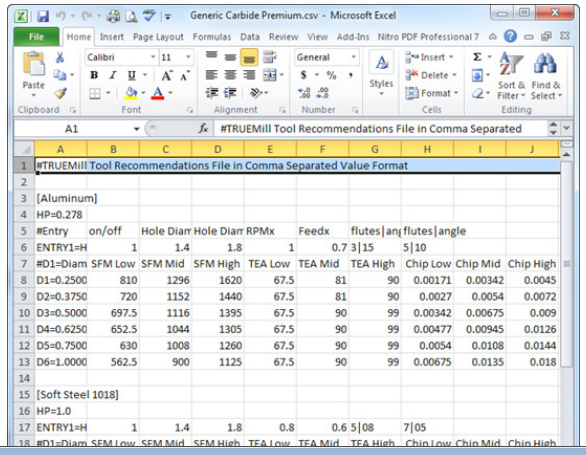


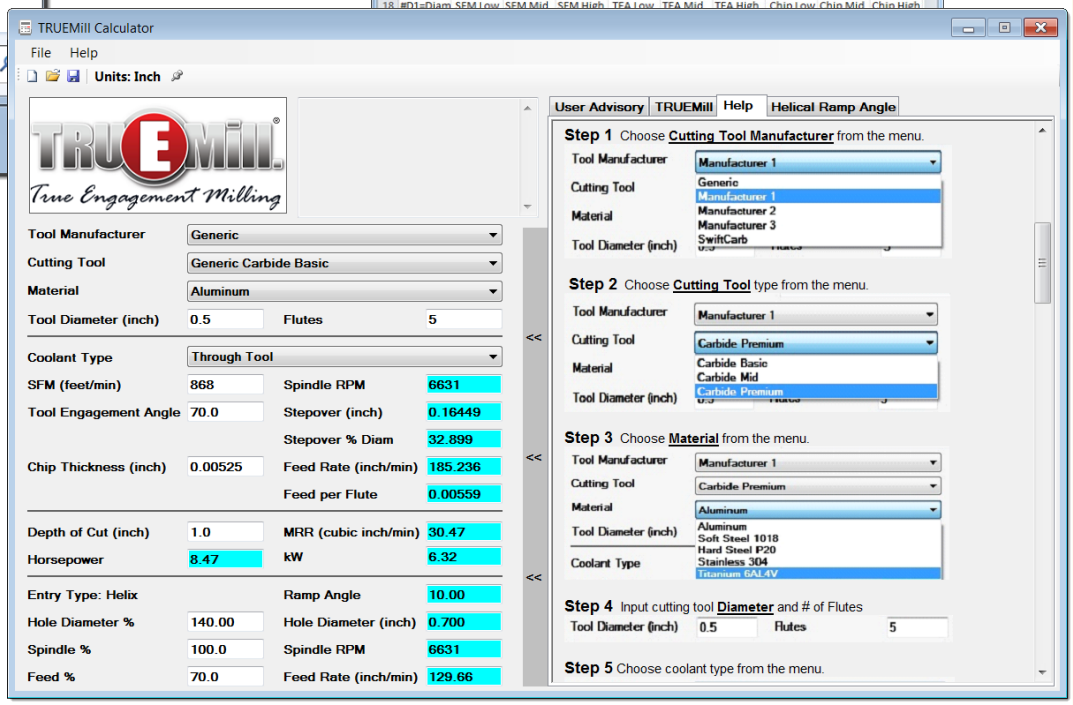
TRUEMill

Redesigned Calculator >>

- Redesigned Calculator has been updated with additional parameters and detailed step by step help
- New parameters for Tool Manufacturer, Tool Material and Coolant Type (Flood, Through Spindle)
- Added entire new section for the Helix Entry parameters
- Customizable for user defined cutting tools using Microsoft Excel
- New Calculator "Get Started" available in Help



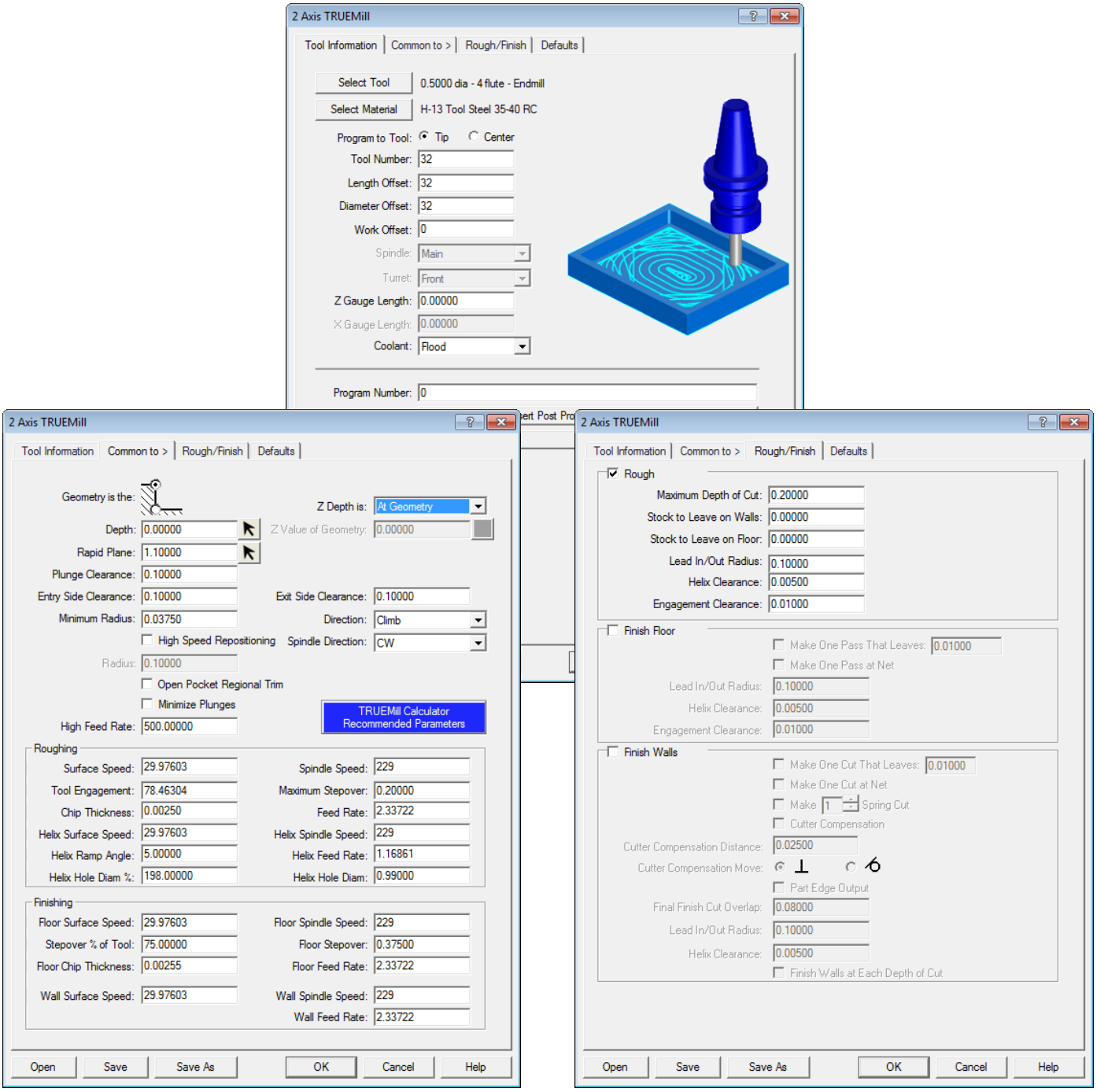



TRUEMill Calculator
File Help
Units: Inch
True Engagement Milling
Tool Manufacturer Generic
Cutting Tool Generic Carbide Basic
Material Aluminum
Tool Diameter (inch) 0.5
Flutes 5
Coolant Type Through Tool
SFM (feet/min) 868
Spindle RPM 6631
Tool Engagement Angle 70.0
Stepover (inch) 0.16449
Stepover % Diam 32.899
Chip Thickness (inch) 0.00525
Feed Rate (inch/min) 185.236
Feed per Flute 0.00559
Depth of Cut (inch) 1.0
MRR (cubic inch/min) 30.47
Horsepower 8.47
kW 6.32
Entry Type: Helix
Ramp Angle 10.00
Hole Diameter % 140.00
Hole Diameter (inch) 0.700
Spindle % 100.0
Spindle RPM 6631
Feed % 70.0
Feed Rate (inch/min) 129.66
User Advisory TRUEMill Help Helical Ramp Angle
Step 1 Choose Cutting Tool Manufacturer from the menu.
Step 2 Choose Cutting Tool type from the menu.
Step 3 Choose Material from the menu.
Step 4 Input cutting tool Diameter and # of Flutes
Step 5 Choose coolant type from the menu.

TRUEMill

Redesigned TRUEMill GUI >>

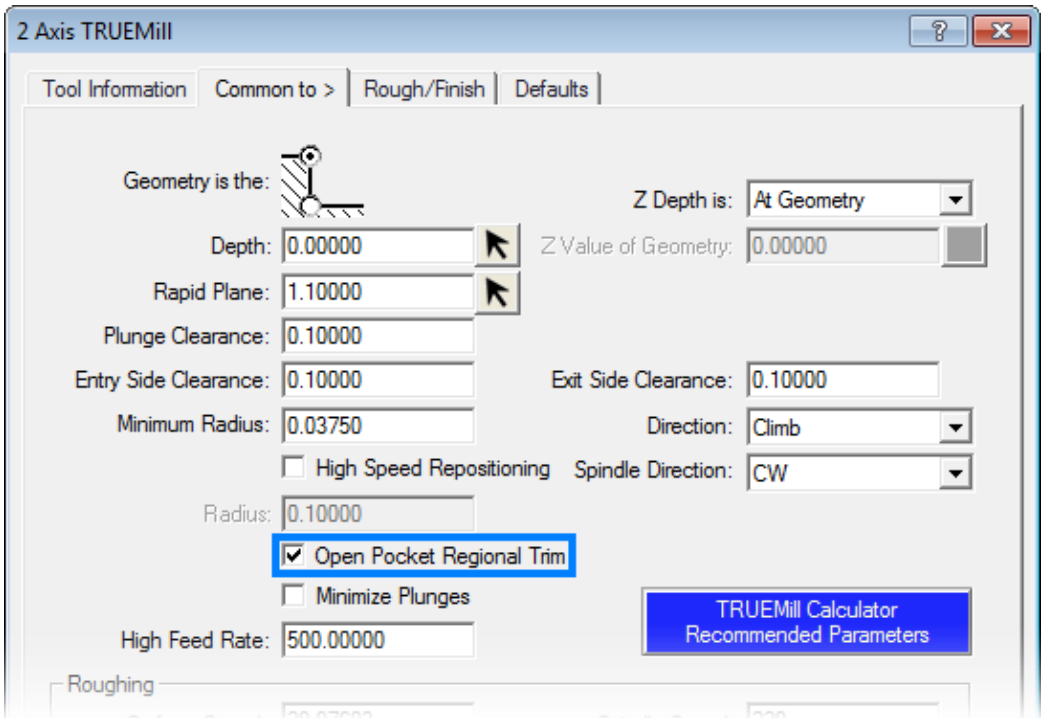
- Redesigned TRUEMill Interface



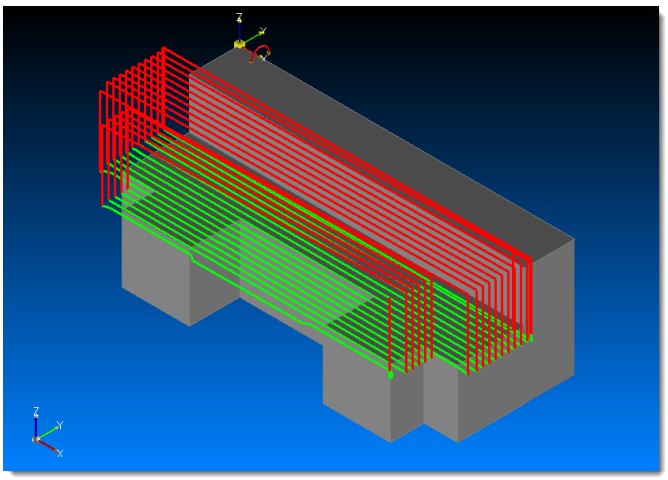
TRUEMill

Improved Toolpath Algorithm >>

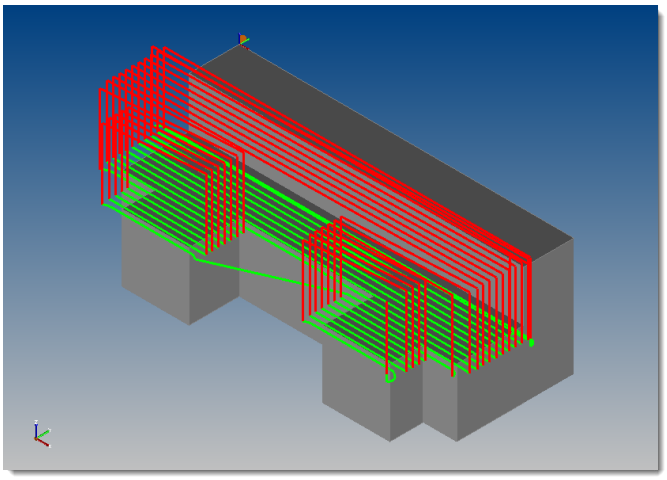
- Improved Outside-In cutting with reduced pickups
- Improved open pocketing for 2- and 3-Axis toolpaths
- More efficient toolpath
- Intelligent tool repositioning ordering



SURFCAM V5.2 TRUEMill



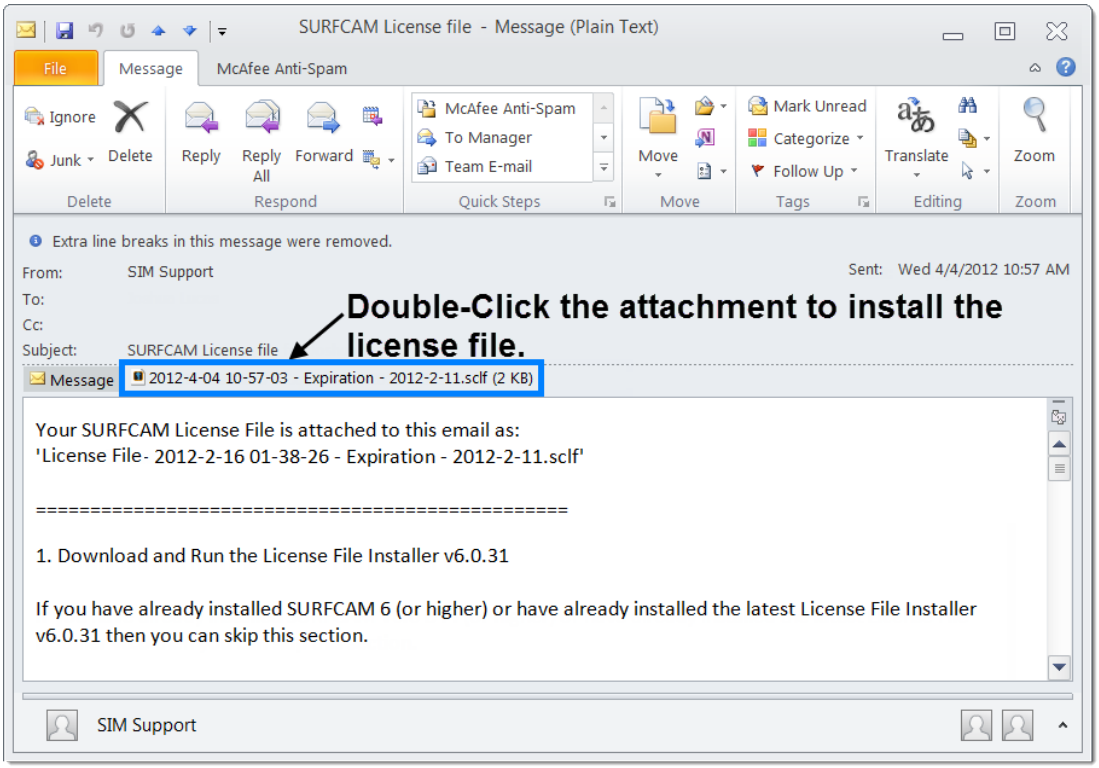
SURFCAM 6 TRUEMill

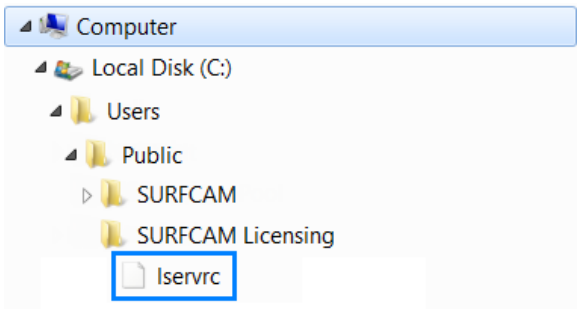


Licensing

New SIM License File >>

- New SIM license file required to run SURFCAM 6
- SIM license files are now *.SCLF file types
- Supports Windows 64 Bit operating systems (including servers)
- Dual SIM License support (Allows licensing from SURFCAM 2002 – SURFCAM 6)
- Centralized location for SURFCAM license file (Supporting SURFCAM 6 and future versions)
- Floating Network License with 64 Bit support

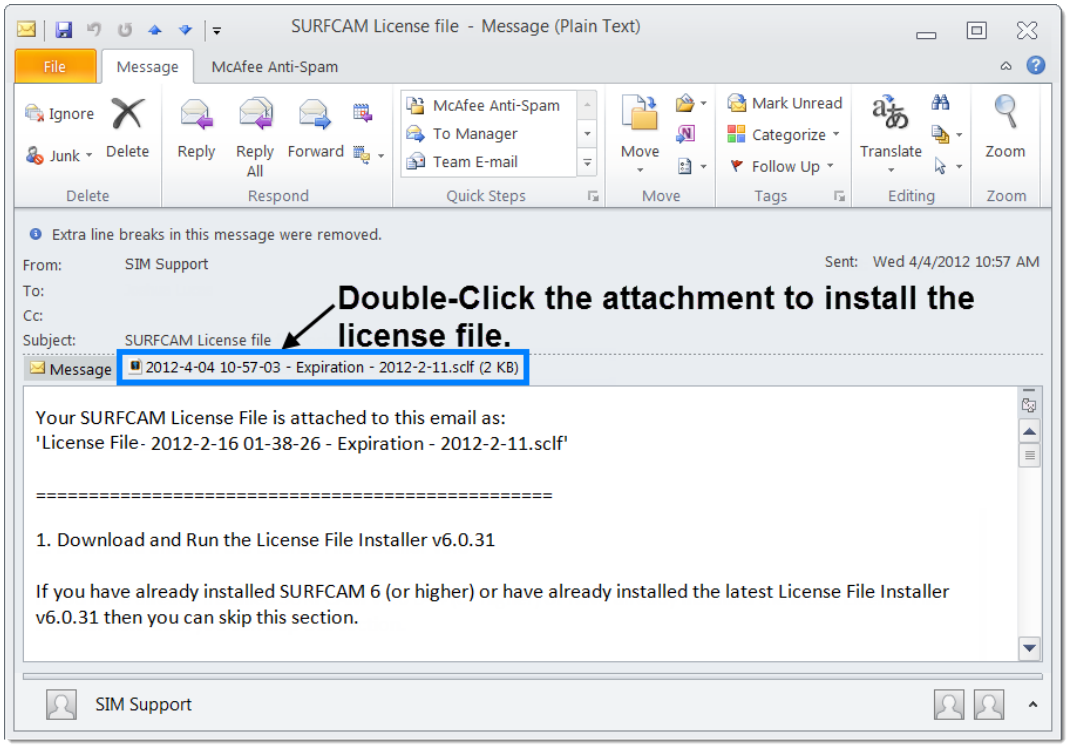


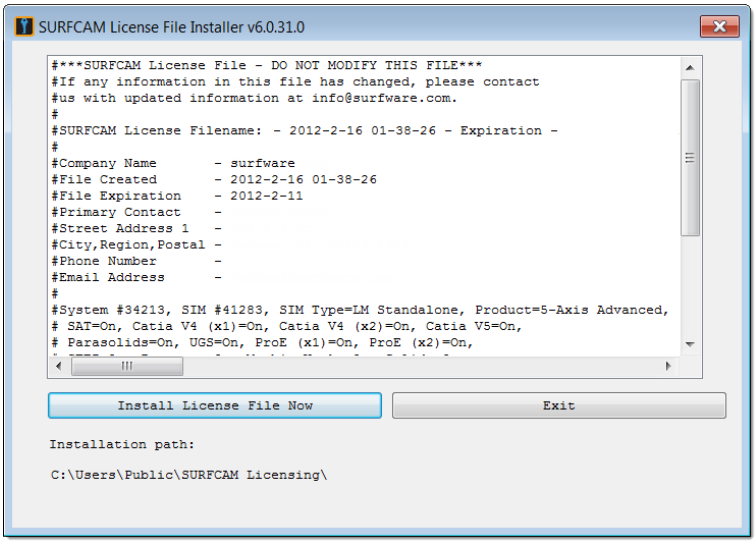


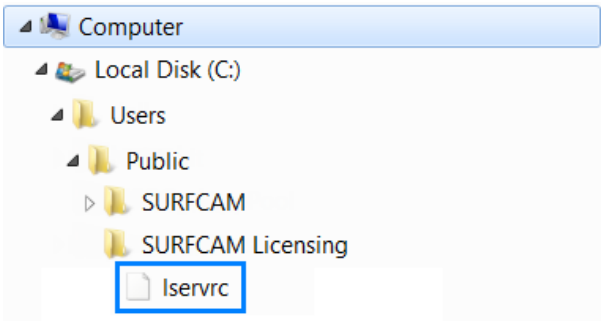
Licensing

New License File Installer >>

- Now Automatically installed with SURFCAM 6
- Automatic SIM driver installation
- Moves siminfo.log to centralized location
- Required to be installed for using new .SCLF license files



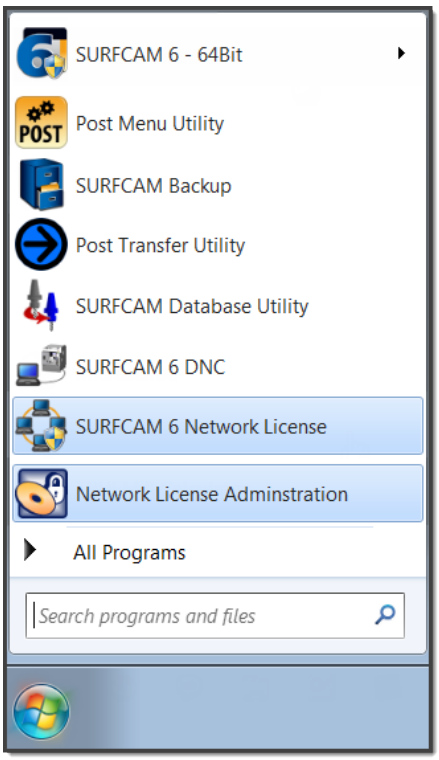

SURFCAM License File Installer v6.0.31.0
#***SURFCAM License File - DO NOT MODIFY THIS FILE***
#If any information in this file has changed, please contact
#us with updated information at info@surfware.com.
#
#SURFCAM License Filename: - 2012-2-16 01-38-26 - Expiration -
#
#Company Name - surfware
#File Created - 2012-2-16 01-38-26
#File Expiration - 2012-2-11
#Primary Contact -
#Street Address 1 -
#City,Region,Postal -
#Phone Number -
#Email Address -
#
#System #34213, SIM #41283, SIM Type=LM Standalone, Product=5-Axis Advanced,
SAT=On, Catia V4 (x1)=On, Catia V4 (x2)=On, Catia V5=On,
Parasolids=On, UGS=On, ProE (x1)=On, ProE (x2)=On,
Install License File Now
Exit
Installation path:
C:\Users\Public\SURFCAM Licensing\

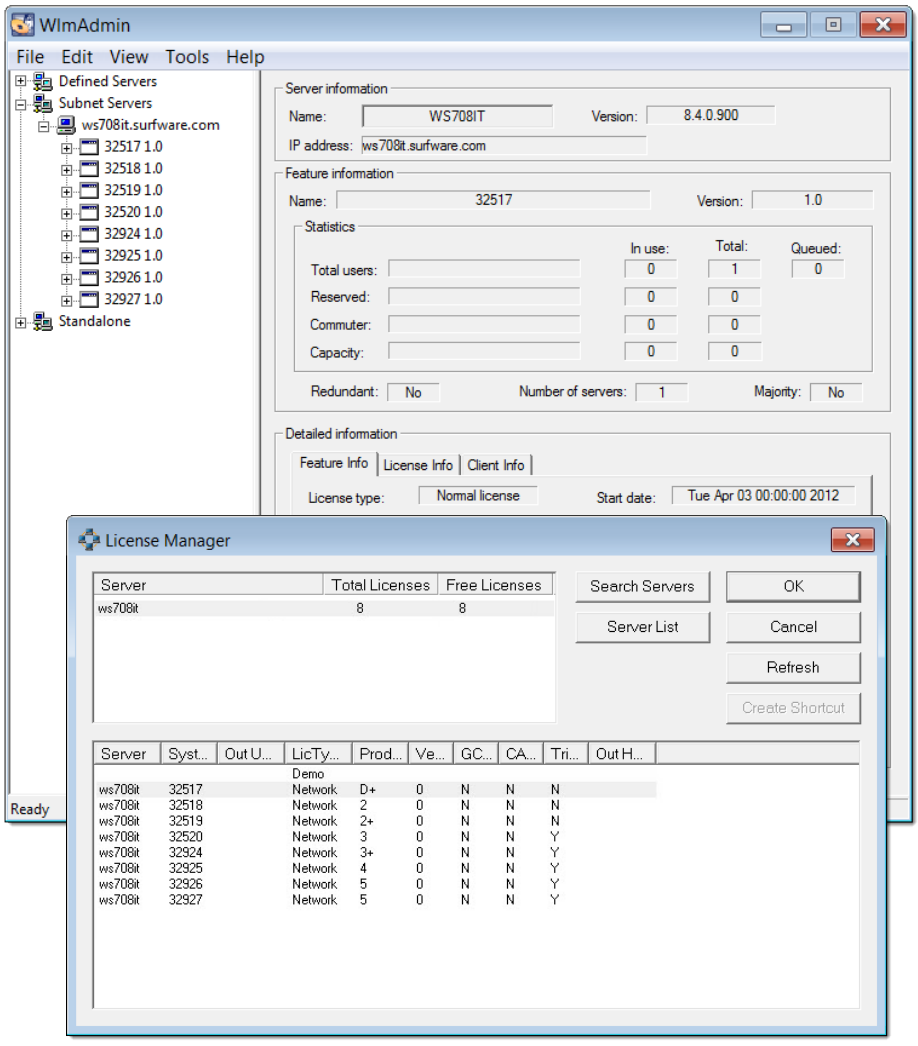


Licensing

Updated Network License Manager >>

- New standalone installer for Network License Manager
- SURFCAM is not required to be installed on the license manager computer
- Separate Network License Manager executable available on DVD and at http://www.surfcam.com/surf_support/SurfcamNetworkLicenseInstaller8.4.6.msi
- Supports Windows 64 Bit (including Windows 7 and Windows 2008 Server)
- Improved stability and performance over previous SURFCAM Network Manager
- SURFCAM Network License Manager Software - SafeNet Version 8.4
- See the Help System for more information





Language Support

Available in 15 languages >>

- English
- Chinese-Traditional
- Chinese-Simplified
- Czech
- French
- Finnish
- German
- Italian
- Japanese
- Korean
- Polish
- Portuguese
- Russian
- Spanish
- Swedish

Corrections List

Corrections in SURFCAM 6

- Please contact your account representative or reseller for a SURFCAM corrections list.